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THE LEFT by Charles Creighton

AMAZING STORIES

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FRONTIERS BEYOND THE SUN by Mallory Storr

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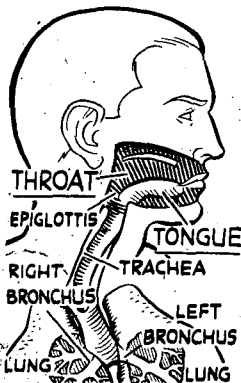
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THE LEFT by Charles Crichton

THE OBS

AMAZING

by the

AS

EVERY writer carries (usually in his head) a file of story ideas he plans to use at some future time. I was a freelance writer for quite some time, but now I am an editor and will have no further use for my idea file. So I'm passing it on to you. If you would like to be a writer yourself and make lots of money, all you have to do is get a typewriter and a ream of paper, and go to work. Also, don't forget to buy an eraser. At some point in your long, successful writing career, you will need one. An eraser and some ideas. So here are some ideas. And good luck in your search for an eraser.

FIRST story idea: A man lives in a ground-floor apartment and spends a good deal of time looking out his window. He sees, on the opposite corner, a stunning blonde walking a dog with a green tail and green ears. On the following day, at the same time, he sees the same dog being walked by a stunning red head. The next day a beautiful brunette does the chore. On the fourth day, the dog is walked by a man in a top hat wearing a cape with a green lining that matches the tail and the ears of the dog. Now our hero is intrigued. He wants to know what's going on over there. So will your reader.

SECOND story idea: Our protagonist has received an anonymous phone call concerning his wife. This causes him to take a day off and watch his home from a vantage point nearby. At nine-thirty, a man carrying a vacuum cleaner knocks on the front door and is admitted. The man leaves, but returns later with a very small package. Again he enters, leaves, and returns with a huge box. Fascinated, our hero watches the man enter and exit all day long with all manner of crates and packages. Finally our hero goes in to investigate these strange goings-on. There is no one inside but his wife. No boxes, no crates, nothing. The wife says she has been alone all day and that there were no callers. Our hero demands to know what goes on. So will

your reader.

THIRD story idea. Our hero sits alone in his apartment. It is evening and the lights have not turned on. The door to his apartment opens, and a stunning girl, dressed completely in black, enters. Our hero sees by the light of a street lamp shining through the window, that she is frightened. She goes to his phone, dials a number and waits. A moment later, she speaks into the phone, saying, "I'm scared. I'll go no further with this affair." We do not hear the answer from the other end, but our hero sees the girl tremble from fear and weakness. In a moment she says, "But what's wrong with your old club foot? No one can tell the difference." Then: "Very well. I'll leave the things on the desk." The girl places some articles beside the phone and leaves, unaware that she has been watched. Our hero goes to the phone table and finds a small gold key, sponge-rubber, black-jack—entirely harmless—and a half-burned pink candle from a birthday cake. Our hero wants to know the answers. So will your reader.

FOURTH story idea. A scientist, seeking a clue to the reason for mankind's existence, makes contact with some extraterrestrial beings via highly sensitive radio beams. He listens in on their discourses but cannot, of course, understand the language. He spends years translating and comes up with the appalling knowledge that ours is not the sublime destiny that we imagined. That we are, in reality, nothing more than deadly disease germs contaminating a huge entity the scope of which we cannot even conceive. This entity is under the care of an equally huge doctor who is trying to destroy us in the same manner our doctors are trying to isolate and destroy us without destroying the earth and the universe at the same time.

So now you have several plot ideas and you are on the way. Good luck again.

PWF

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— All STORIES Complete —

FRONTIERS BEYOND THE SUN (Novel—40,000) by Mallory Storm 6

Illustrated by Tom Beecham

In our dreams, we project the World of Tomorrow, and we are all sure it will be a better world. But is that true? Do we really deserve a Utopia?

LUNA ON THE LEFT (Short—6,000) by Charles Creighton 64

Illustrated by John Fay

The gophers were playing hob with Larry John's backyard. He resented it. Then one of them — a hisping gopher — popped out of a hole and sounded off!

DEATH BEYOND THE VEIL (Novel—30,000) by E. K. Jarvis 78

Illustrated by William Slade

It seemed there should be a limit to human endurance. But the scope of war increased in savagery, brutality, and sheer terror. Yet humanity fought on.

THE SORCERESS (Novelette—14,000) by Rog Phillips 124

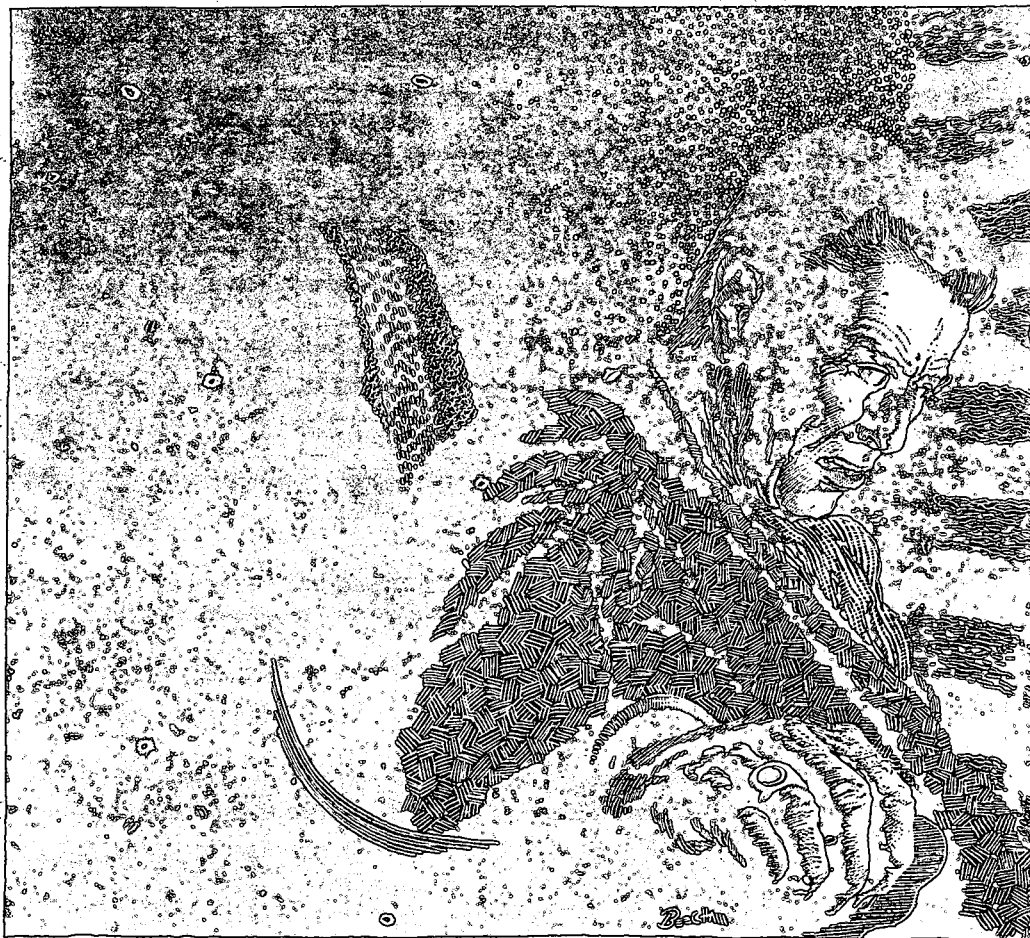
* Illustrated by Tom Beecham

She had been dead for centuries and mankind remembered her as a benevolent goddess. Then how could she return as a living symbol of sickening horror?

Front cover by Arnold Kohn

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He was powerless to intercede.

FRONTIERS

by Mallory Storm



BEYOND THE SUN I

Can you take the present and extrapolate
the future? Can you visualize a well-
ordered, Utopian World of the Future?
Ha! You're due for some big surprises

GRAMPS STRETCHED hugely, then settled back in his chair again. Lighting an old-fashioned cigarette, he inhaled deeply and glanced at the sun-filled countryside. Fresh spring air blew softly across the porch where he sat, bearing with it the smell of growing things.

Billy, his grandson, looked up from his studies. "What started the Age of Centralization, Gramps?" he asked.

Gramps pursed his lips. "Kind of hard to say. Order to know what started it, you'd almost have to get into the minds of the men responsible. How far are you in modern history?"

"I'm just past the Second World War."

"Do you understand how that war started?"

Billy nodded. "I think so, Gramps. At least, it seems pretty clear. The part that I simply don't understand is why everyone got together the way they did."

"Well, that's hard to explain too, Billy, without going over a lot of details and that would take a lot of time."

Billy shrugged his shoulders. "I haven't got anything to do, Gramps. I'd kind of like to hear about it. You never have talked much about the past."

"I guess I haven't," Gramps admitted, "but I don't usually think too much about it. The history of the world is a pretty sordid affair up until the Reclamation."

"Come on, Gramps," Billy coaxed. "I've got to write a thesis on this next month and I sure can't do it with the material I've got now."

"Well, I—don't really know where to begin," Gramps said hesitantly.

"Why don't you start with the property system. That's something I don't understand either. How did the tycoons get other people to give

them those big fabricating plants?"

Gramps chuckled. "Well, they didn't exactly give all that land and equipment away. It worked something like this. In those days, a man was born into this world with nothing, he was educated in publicly owned schools and, when he got to be a young man, he would go out and look for a job."

"You mean, he'd sell himself into voluntary slavery!"

"That's about it," Gramps replied, "but he had to. The employer, as the tycoon was called, actually didn't have any authority. A man would agree to work for him for so many hours and he would receive so many certificates which were good in trade."

"Those certificates were called money, weren't they, Gramps?"

"THAT'S RIGHT, son, and there certainly was all kinds of it. Well, let's get back to our young man. Let's suppose he worked for eight hours a day and yet he made enough money or trade certificates in four hours to exchange for all of his needs. Then, half of what he earned, he could save by giving his certificates to a bank to keep for him."

Billy nodded. "I follow you so far, Gramps. Go ahead."

"Well, each year, the bank would pay this young man interest, as it was called. That is, they would give him two or three percent of his sum in the bank in addition to what he had saved. This was given in return for the privilege of letting the bank use his money for that year."

Billy sighed. "I don't see how the banks could get very far doing that."

Gramps laughed. "You can take it from me, they did. The banks would loan this money to people who needed it and charge them a small sum

for its use. The sum that they charged borrowers was quite a bit more than what they paid out as interest."

"You mean, the banks didn't do anything but just sit and pass other people's money back and forth? They actually didn't do a thing productive?"

"That's right," Gramps smiled, "but we're digressing. Let's catch up with our hero. Years have gone by now and our young man has grown past middle age. He's been saving everything he could and he's been earning more and more money as his experience makes him more valuable to the tycoon. Then one day, our man goes to the bank and takes out all his money and looks around for a place to invest it. That is, he wants to put it somewhere where it will pay him more than it does in the bank. Let's suppose he goes up to see his own employer. He says to him, 'See here. I've worked for you for many years and I've saved all this money. Now I want to be a business man like yourself.'"

"Well, his employer looks at the money and says, 'My business is worth twenty times what you have here but I'll tell you what I'll do. I'll sell you one twentieth of this concern and I'll put you in charge of part of the business.' Our man likes this idea so he does it and, from then on, he's no longer an employee. He's a tycoon."

BILLY'S FACE mirrored his lively interest.

"After the second World War was over," Gramps continued, "the secret of atomic energy was known but it was kept by the military and it was several years before they let the world use it. Even then it was under such crippling restrictions that no one knew much about its management. The

country I was born in was on the verge of a revolution or civil war. The first users of atomic power were given wide publicity in the hope it might prevent the coming revolt. I remember only vaguely the headlines in the newspapers as, one after another, the big industrialists were given permission to use atomic power. For a while, we all thought it was the beginning of a new era and, in a manner of speaking, it was."

"The national work week was cut down and there was plenty for everyone. But, only the big tycoons were given permission to use atomic power and, little by little, they forced out the little businesses. The little ones couldn't afford to compete with the big ones so they went into bankruptcy or, in most cases, sold their holdings to the big companies. Along about this time, we began to notice that the forests were dying and things just wouldn't grow. Some scientist declared that he had found a new particle in the atomic structure and this particle was the one that was killing all the trees and plant life."

"That was the nucleatron, wasn't it?" Billy asked.

Gramps nodded. "That was it, all right, and it was there, too. The big corporations said there wasn't any such thing and went right on using their unshielded power generators while the rest of the folks sat around and watched the forests disappear, the meadows become barren and the whole of the North America turn into a desert. While this was going on, these big companies were merging with other big companies until they were too gigantic to even imagine. With the soil dead and unproductive, the companies were even the only producers of food. Then, little by little, they extended themselves until they had a grip on the whole world.

"There weren't any real governments. To be sure, they still had names but the companies had the power. Finally, there were only five big corporations, Power, Inc., Transportation, Inc., Communications, Inc., Food, Inc., and Fabrication, Inc. There wasn't one small business in all the world, not even a pencil peddler. Every man, woman and child, even new-born babies, was technically an employee of one of these colossi. A man was born and raised and died in the service of one company whose service he could not leave without inviting starvation. There was no recourse to law except the company's law and the company's police force. There were no elections; there was no individual freedom. Yet, there was no want and almost everyone was satisfied because he didn't know any better.

"The companies traded freely among themselves apparently in perfect harmony with no one infringing on another's field. But underneath, there was tension, strain and distrust and, occasionally, people would disappear, never to be heard from again. The population was concentrated in huge cities with most of the land a desert. The companies didn't do anything to correct this because it gave them an iron grip on the people of the world. The biggest of these cities was Transinc I, which was on the narrow neck of land that joined what once had been North and South America. From the air it gleamed like a box of jewels. It was over a hundred miles long and fifty miles wide and stretched from sea to sea. Great resilient roads, thirty lanes wide, led to the north and south carrying the goods of the world by land. Harbors stretched the length of the city on both sides of the isthmus. In each of these great harbors, giant cranes lifted the complete cargo section out of the

immense ocean carriers and trundled them overland swiftly on their beryl-nickel rails. Some of these sections were stacked like cord wood in gigantic, roofless warehouses but others were carried the complete fifty-mile trip from ocean to ocean and, there, fitted neatly into the hulls of other cargo carriers.

"IN SPITE of the massiveness of the works involved, the noise was hardly audible and even the giant cranes rolled over their diamond-hard rails with only a sigh of wind around their straddled legs.

"To the south of the city, twelve overhead mono-rail cargo trains sped swiftly to and from the great air terminal. This great man-made plateau, six hundred square miles in area, saw the daily arrival and departure of over ninety thousand air and strato craft. These varied in size from single-place atomic jet planes to the mammoth gravity-beam-supported strato liners.

"The metropolitan center of the city was a circle approximately twenty-five miles in diameter in which almost half of the three hundred million employees of Transinc were housed. The remainder of the employees were located in the eleven subsidiary transportation centers throughout the world. Almost in the very center of the city, in the shadow of the eight-hundred-story Transinc administration building, stood the one-hundred-story Cominc building, the outlet for Communications, Inc. It was directly connected to the equally vast city of Cominc, surrounding what was once San Francisco bay like a huge mouth preparing to engulf a tiny morsel. The connection was an intangible, invisible beam stretching like a thread through the Cominc relay station to the disbursement center in Cominc. As compared to the huge blue and white buildings of Tran-

sinc, the Cominc building was small. It stood out only by the bright swirling red and yellow of its plasto-marble shell."

CHAPTER II

ON THE top floor of the Cominc building, Dr. Simon B. Kirk, the Divisional Director, sat in his palatial offices. He was young to be the holder of such an exalted position, only thirty-one. His brilliance and achievement in pioneering the polar automatic relay stations had put him in line to become the next president of the company. His future was assured and he was smugly satisfied with himself. His vigorous outdoor life had left its mark. He was tall, bronzed and had steady blue eyes. His dark hair held just a suggestion of a wave which he hourly tried to remove with a comb.

He leaned back in his chair looking at the panoramic view of the immense city through the wide panes of transparent plastic that formed the walls of his offices. This also enabled him to see the balance of his offices yet remain unseen himself. He musingly watched the golden sunset and the lights, winking on all over the city like earthbound stars. His rosy dreams of the future were interrupted by the melodious signal of his desk visor. Simon touched the gleaming chromium bar at its base and the visor sprang into brilliant life. The normally untroubled face of the District Chief Engineer appeared before him with tight lines of worry around his eyes.

"Yes, Heisman. What is it?" Kirk asked brusquely.

"I don't like to trouble you with the problems of the engineering department, sir," Heisman began, "but we've had service interrupted four times this week. We can't find anything wrong with the relay station and I was just wondering, sir, if you would

mind giving me a hand. I don't mind admitting I'm stumped."

Simon Kirk's momentary annoyance didn't register on his face. "After all," he reflected, "this is part of my job." Aloud, he said crisply, "Not at all, Heisman. I'll be down in three minutes."

With a flick of his finger, Simon turned off the visor and got to his feet. Punctually, three minutes later, the gravity lift lowered him to the first sub-level of the Engineering Department. He stepped through the maze of controls which operated the vast communications center and into the Chief Engineer's office in time to catch the last words of the Chief Engineer who was speaking to one of his assistants.

"—if the big shot doesn't get in the saddle. I'll bet he doesn't know that service was off for thirty seconds yesterday."

Kirk answered tranquilly, "Indeed I do, Heisman. In fact, I sent a memo to the Chief asking for an inspector to check on the trouble."

Heisman's jaw set grimly. The arrival of an inspector would mean that he would be removed from authority until the investigation was over. "There wasn't any need of doing that, sir," he said plaintively. "I'm sure I can find the trouble if I'm given a little more time."

"You've already had a week," Kirk answered stiffly, "and you are only allowed four days under company law to find interruptions. You should have notified me three days ago if you wanted to avoid an investigation."

HEISMAN said nothing and handed the small bundle of blue interruptions-of-service sheets to his superior. Kirk studied them intensely and then looked up.

"The inspector won't arrive until to-

morrow but I'll go out to the relay station tonight. The monitors show no breaks here or in Disbursement. If I can find the trouble and correct it tonight, I won't have you relieved. Otherwise—" Kirk left the thought unfinished and abruptly left the room. He turned as he reached the gravity lift. "Remain here in the office," he ordered. "I'll contact you at 0130." Then the lift whisked him out of sight.

There was a slight haze around the air terminal and dew was beginning to settle as Kirk walked across the grassy sward to the control tower. He stepped through the doorway onto the escalator and rode to the top of the tower. The control chief was listening intently to weather reports and didn't notice Simon's entrance. He stood by the door waiting for the chief to finish his listening. In a few minutes he snapped off the instrument and turned to see Kirk standing there.

"Why, Dr. Kirk! I didn't hear you come in!" The man smiled brightly and extended an enthusiastic hand. "Certainly glad to see you again! Remember the time I was commanding that strato liner? Boy, I sure thought I was going to wrap that boiler around a mountain! I would have, too, if you hadn't found my position. I don't know how you Cominc boys do it!" he went on still pumping Kirk's hand with Homeric gusto. Simon was taken back by this verbal monsoon.

"Ah—, of course, of course,—ah, happy to see you again Captain—, ah—" Kirk racked his brain but all he could think of was Windbag.

"Wingate! Don't tell me you've forgotten your old pal Captain Wingate! Only it isn't Captain any more! It's Commandant Wingate now! Lots more credits every payday. Say, how about

doing the city with me tonight? I'm off in an hour. Nothing's too good for my old pal!"

At this point, Wingate punctuated his sentences with violent blows on Kirk's unprotected back. Such pulmonary and muscular development is only attained by ship captains after decades of service.

Kirk's purpose leaped to mind with the aspect of a life preserver to a drowning man. "I'd love to, some other time, Commandant," he began tactfully, "but I've got some work to do tonight. I'm going out to the relay station and I'd like to use a Transinc messenger 'copter instead of one of our own. I'd like to do a little scouting around without being noticed."

"NO SOONER said than done!" the older man bellowed. The Commandant drew a red flight order out of his desk and, after quickly perusing the flowing auto-file, dropped the sheet into the machine and pressed one of the multitudinous buttons on its surface. The auto-file purred briefly and made clucking noises like an overmaternal hen as it automatically recorded flight data on the sheet. The hum died and a white release card slid out of a slot bearing all the pertinent data about the craft. At the same instant, the service man in the hangar would be receiving instructions on a visor about preparing the ship for flight.

"I wonder," Simon said hesitantly, "if I could keep this a secret? You know the company rules don't allow me to operate another company's equipment without special permission."

"Surest thing in the world!" exclaimed Wingate, and he added his own name to the card with a laborious flourish.

Kirk reached for the proffered card just as the Commandante launched into an anecdote about his colorful past that threatened to assume the proportions of Buckle's "History of Civilization." Simon tried a hasty retreat toward the escalator but the older man followed him in hot pursuit, the walls echoing and re-echoing to the heroism and sagacity of the redoubtable Wingate. Finally, the escalator carried Kirk away from the ever-mounting din at the top of the tower.

Simon walked rapidly toward the hangars, glancing over his shoulder apprehensively as if in fear of being overtaken by the braying Commandant in his resplendent uniform. The silence was almost oppressive. At last he reached the hangars and, inside, the service chief glanced briefly at the four silver embroidered triangles on the lapels of Kirk's jacket. He received Simon's card with a deferential nod and crisply led him outside to a blue and white messenger 'copter whose overhead blades were still folded.

"There she is, sir," the service chief announced. "Will there be anything else?"

"NO, THANK you," Kirk replied. He settled himself in the cockpit and fastened the plasti-glass bubble tightly over him. He noted with some relief that the craft was practically identical in design to his own company's. A brief touch of the master switch and the great blades unfolded overhead. The atomic motor's hum raised in pitch. Simon pressed the takeoff button and waited for an answering note through his loud speaker from the control tower. Then, a great wave of sound swept over the plane, penetrating its nearly sound-proof body.

"Hi there, Dr. Kirk!" The be-

medaled figure of the Commandant charged across the field toward him like a gold-braided rhinoceros.

Viciously, Kirk ramped the ascension lever to its full position. With a surge of power, the craft leaped upward. Soon the buildings below took on the proportions of toys but, even then, Simon imagined he could still hear the stentorian tones of the ex-captain.

Kirk adjusted the controls and set the auto-pilot for the four-hour trip. Darkness completely cloaked the earth and, as the lights of the city were swept away behind, only the instruments gave indication that the craft was moving at all. Simon amused himself with the ship's televisior, listening and observing the three-hundred-piece symphony of Power, Inc. This program was succeeded by an insipid episode from the daily life of an equally insipid characterization of motherhood. The observer was left in no doubt that this was presented by the Crystol Soap Division of Food, Inc. The announcer stressed three times the spelling of the word, Crystol. With a vague feeling of nausea, Simon snapped the 'visor off and decided that the program was the greatest inspiration for UN sanitation he had ever heard. The heroine of the story could only have achieved her present mental state by eating as well as washing with the stuff. Kirk comforted himself with the thought that listeners of public entertainment had suffered under the same drivel from soap manufacturers for longer than he could remember.

He wondered whether or not the 'visor would pick up an Eastern Hemisphere station and switched it back on. The set responded promptly by bringing him the face and voice of an E. H. announcer. He was prattling in rapid-fire Russian and remind-

ed Simon of a machine gun with inflection. His limited understanding of Russian couldn't hope to cope with this so Kirk retuned the set to the local station.

The local entertainment channel had just ended the daily episode of the soap program. It was one of the few sponsored programs on the air. Kirk had tuned in just in time to hear the announcer say, "C-R-Y-S-T-O-L! Crystöl! The soap of Crystol purity!"

Soon a group of amateurs appeared and presented Shakespeare's "Julius Caesar." It was wholly uninspired but unoffensive. Just as one of the characters completed a hammy "Et tu, Brute," the screen broke into a display of pyrotechnics. Geometric shapes and shadows flitted across the screen; polychromatic, amorphous shapes were born and died too quickly for the eye to see their outline. There was blackness for an instant, then the stage sprang into view again. Someone stood over Caesar, looking for all the world as though he would give vent to a Tarzan yell of triumph. Caesar was now stretched out full length, making horrible gasping sounds.

Kirk turned the set off and stared at its blank, idiotic face. "Interruption number five!" he muttered. "And what an interruption!"

IT WAS UNLIKE anything that Simon had ever seen. His concentration was broken by the sharp warning of the landing signal and the craft began to descend rapidly. He cut the automatic controls and landed the ship directly in front of the relay station.

At first, everything seemed perfectly normal. Then Simon noticed with a queer feeling in the pit of his stomach, that the door of the station was slightly ajar. He reached inside of his jacket, detached the tiny needle gun

and removed the safety. Opening the hatch as quietly as possible, Kirk jumped down to the ground. To Kirk, the crunching of his boots on the sand was loud enough to wake the dead. Gently, he toed the door open, holding a small inspection light in his left hand and the needle gun in his right. No matter who or what it was, he was confident that one or two anesthetic charged needles would render it *hors de combat*. The sharp beam of the inspection light swept over the interior of the building and came to rest on the face of a middle-aged man.

The man's voice was deep and resonant. "You needn't shoot," he said calmly. "I have my hands in the air."

Kirk watched him intently as he snapped the emergency lights on. The man was tall and looked strong in spite of his advanced years. His snow-white hair was thick and was swept back in a smooth pompadour. His dress was much the same as Kirk's except for the heavy holster that hung at his hip. Simon gingerly disarmed him before speaking.

"You know that this is an offense punishable by death, don't you?" Simon asked heavily, indicating the man's atomic blaster which he had just lifted. "Every company has a law against possession of one of these. You also know that being within one hundred feet of this building is punishable by death."

"I had only to pull the trigger on that and I wouldn't have to face execution," the man pointed out. "You were clearly outlined in the doorway."

Kirk regarded him in speechless puzzlement.

The man continued. "If you had been in a company plane, I would have fled before you landed. As it was, you did catch me off guard but I reasoned correctly that only a high official of Cominc could obtain the

use of a Transinc craft. I thought it would be worth gambling my life to talk to you. I haven't too much to lose. I'm getting old."

"Just what did you want to know that's worth risking your life for?" Simon asked cautiously.

"I didn't want to ask you anything," was the reply. "I wanted to tell you something, Dr. Simon Bolivar Kirk!"

Kirk raised an eyebrow. "You know me?"

The man chuckled softly. "Doesn't everyone? You were quite the pioneer a few years back."

Simon smiled in spite of himself. "How did you know I'd come here?"

"I didn't. I hadn't even hoped you would. I just knew it would be somebody up in the top brackets."

"**W**ELL," KIRK prompted somewhat impatiently, "what was so important?"

"If you please," the intruder asked, "may I lower my arms? They're growing awfully tired. I assure you I'm unarmed."

Simon studied him briefly and then nodded his assent.

The stranger replied, "Thank you. Now as to my purpose, first I must tell you that I'm not an employee of any corporation. I didn't like being a slave like you."

Kirk colored slightly and barked, "I'm not a slave! I'm a Divisional Director!"

The white-haired man waved his hand as though dismissing the interruption. "No one can tell me what to do," he went on, "and neither can anyone kill me if he feels like it in my own land."

"Your own land?" Simon repeated blankly.

"Do you think everyone is content to be a slave?" the man asked gently.

Kirk bit out, "I repeat! I am not a slave!"

"Oh, yes, you are," the man contradicted, "a high-salaried, straw-boss slave but a slave none the less! The company can break you just as easily and quickly as it could its lowest worker."

Simon's face became a brighter crimson. "That's the third offense punishable by death," he snarled, "trying to undermine our company governmental system!"

"Can they shoot me three times?" the man asked with grim humor.

"Go on," Simon said gratingly, "you must have something else to say. You can't just be trying to make your death a certainty for nothing!"

The intruder smiled a little. "I admit I'm not more anxious to die than you are but I'm afraid that I don't seem to be converting you too easily. Possibly I banked too much on your name."

Kirk's puzzlement must have been apparent for the stranger elaborated.

"Have you never heard of your namesake, Simon Bolivar? I've always been one of his greatest admirers. In fact, reading his life led me to become a free man."

It would be untrue to say that Kirk had never heard of Simon Bolivar but the name aroused only the vaguest response in his consciousness.

"As a matter of fact," the stranger added, "I've carried that book with me as a good luck charm ever since I read it. It looks like the charm has run out, though, so if you'll accept it, I'll give it to you."

The man reached into the pocket of his jacket and Simon's hand tightened on his gun. The man brought forth a small, leather-bound book and Simon's hand relaxed. He accepted the book without comment, glanced at the cover and noted the plainly printed

title, THE LIBERATOR.

Simon began to wonder what he was going to do with this man. He had been accused of being both cruel and tyrannical but he liked to think of himself as just and humane. Simon tried rationalization. "After all," he reasoned, "this man is calm and convincing but his sentiments clearly show him to be insane." That was it! INSANE! Just a harmless lunatic in spite of the blaster.

KIRK RECALLED the tales he had heard of men on isolated patrol duty losing their minds. The explanation was brilliantly simple. He felt a sudden sympathy for the demented man.

"If you promise me one thing," Simon began cautiously, "I'll not take you back with me."

"Go on," said the man with an inscrutable smile.

"If you'll promise never to go near a Cominc relay station again and give me the key you used to open this door, I'll let you go free," he finished.

"Sounds fair enough," the man assented, handing him a small gleaming key.

"All right, you can go," Kirk said. When the stranger reached the door, Simon stopped him and handed him the blaster. After all, he couldn't leave him unarmed in this barren wilderness that had once been the United States. Besides, he had to dispose of the blaster in some way. Its presence would be hard to explain.

The man bowed his head a little, accepted the weapon and departed.

SIMON BEGAN an inspection of the station to see what damage there was, if any. After forty-five minutes of searching, he found nothing, nothing, that is, except two tiny marks

like scratches on the windings of the modulator coil. It wasn't until then that Kirk remembered the strange images he had seen on the screen. Had a coil merely been shorted, it would have produced no image, only blankness.

"Probably some hazy experiment the man thought up in his loneliness," Kirk mused. He glanced at his chronometer. "0126," he said aloud. Quickly turning off the lights, Simon locked the door. He walked out to the waiting ship, absently dropping the key into his pocket on the way. Seating himself once more in the craft, Kirk pressed the call button on the visor. The Cominc operator's pleasantly impassive face appeared. Her eyes widened as she recognized her superior.

"Your connection, sir?" she inquired.

Simon heard the stranger's voice in his brain repeating, "SLAVES!" He squelched the thought abruptly.

"Get me Cominc, 109." He paused, then added, "please."

The operator's face looked downward for a moment, then the view snapped to the face of the Assistant Engineer.

"Heisman, please," Kirk requested.

The assistant averted his eyes for a fraction of a second and said in his ingratiating voice, "Mr. Heisman was taken ill, sir, and had to go home. May I serve you in any way?"

"No—, I guess—not," Simon answered slowly. "That's all. Good night."

The assistant smiled briefly before his face disappeared.

Kirk frowned in speculation. He'd be willing to bet that Heisman wasn't sick. He aroused himself and prepared the ship for flight. As he took off, he hoped he could catch a few hours' sleep before arriving home. He would need some in order to face the inspector tomorrow.

CHAPTER III

PROMPTLY at 523, the landing signal sounded again rousing Simon from his fitful nap. He stretched and looked below. The machine had performed its duties faithfully for it was suspended a thousand feet above the field. He signalled the control tower and the controlman's sleepy face lighted the screen, perfunctorily giving directions for landing. The background of sound around the controlman carried no highlights of Commandant Wingate's blaring voice which gave Simon a profound sense of relief. Certainly he was in no mood for any blustering joviality.

The craft lowered itself gently under Kirk's guiding hand to its preordained spot. He had hardly unfastened the hatch when a three-man crew took charge and whisked the plane from the landing area to make way for others. Already the tremendous activity of the day was beginning.

Kirk walked from the paved hardness of the field onto the grassy lawn at its periphery. Debating momentarily, he decided the walk to the metropolitan transitube would clear his mind. After fifteen minutes of walking, a soothing scent assailed Simon's nostrils. It appeared to be a melange of ham, bacon, eggs, pancakes, toast and coffee. Although he knew the odor had been synthetically compounded in a laboratory and shipped to the restaurant in a bottle, it was none the less appealing.

"Probably the old man who broke into the station would disapprove of Syntharoma also," Kirk said half aloud. Oddly enough, he had forgotten about the meeting of the night before until now. Still, the average company official who has to endure an inspection is liable to think of little else. With the thought, Simon thrust

his hand into his jacket and withdrew the book he had been given. He turned it over in his hand meditatively as he entered the automat. The brightly lighted interior was deserted. Simon scanned the viso-menu briefly and pressed buttons to indicate his selections. While he waited for the mechanism to serve him, he opened the cover of the little brown book. Inside, on the title page, he found: THE LIBERATOR, The Life of Simon Bolivar. Below this, inscribed in a five hand, was, "This book gave me a new life at fifty. Arthur C. Belcourt." Kirk read no further. He was stunned.

"Belcourt!" Simon knew that he had been lost at sea eight years ago. And this was incredible. How could the old demented guard have gotten this book? Unless, of course, it might be a forgery.

SIMON REACHED into his pocket again and found the key he had carelessly dropped there the night before. Now, on closer examination, he could see that it wasn't an ordinary stainless-steel key. On the shaft of the bit of metal he could discern tiny engraved letters, "A. C. B., from Cominc".

Kirk remembered the strange story of how the key came to be made. A meteor had fallen some twenty odd years ago and it was composed of some metal which defied analysis. It was harder than diamonds and couldn't be melted at any temperature available. Yet, in a powerful magnetic field, it softened enough to be worked and immediately hardened when withdrawn. The tiny specimen, which had been tested in the laboratory, had been made into a master key and presented to Arthur C. Belcourt, who was then the Research Chief of Cominc.

Simon studied the bit of metal for a moment. "Could this be the fabulous key?" He withdrew his ring from his finger and held it with its small diamond between his thumb and forefinger. He selected a small point of the stone and brought it sharply across the haft of the key. It left no mark. Then this must be it! But then, how did that old guard—but wait! He had only assumed that the old man was a guard. No! That couldn't have been Belcourt! If it were, why should he conceal himself? A scientist as great as he could step right back into his old position at any time and there would be no questions asked.

At that moment, Kirk's meal arrived and slid smoothly onto the table from an overhead carrier. He ate measuredly, reading the book from cover to cover in hope of finding a clue to the mystery. Speed reading had been developed to a science in the last few years. Simon scanned the pages, absorbing the material at more than a thousand words a minute. When he was finished, it could not be said that he understood the book thoroughly but his semantically trained reflex patterns stored the material accurately. Within a few hours, his understanding of the book and its contents would be as complete as though he had studied for days under the old system.

This absorption and coordination process was well under way when he left the automat. It was only a short walk to the metropolitan tube. At the tube station, Simon entered a waiting carrier and settled himself for the forty-five minute journey. Shortly, the carrier began its headlong flight to the city center. Throughout the trip, his meditation went on. At the terminal, he proceeded on foot to the Cominc Building, still in deep abstraction.

Inside the building, Simon made the journey to his office before divorcing himself from his intense concentration. The logic was simple and inescapable. It must have been Belcourt that he saw last night! Yet that did not explain his presence at the station.

SIMON GLANCED at his chronometer. 744. He would have just enough time to freshen up a bit before the inspector's arrival. He pressed the "no admittance" button on his desk, automatically locking all doors. Stripping off his synthoid garments, he tossed them into the disposal chute, carelessly. It hummed briefly and, a moment later, from the slot beside the chute, a fresh outfit appeared, containing all his belongings in the proper pockets. Simon stepped into the "fresher cabinet." Warm cleansing solution deluged his body and was followed by fresh water. Warm air ducts dried him as the massage stroked his body to brisk aliveness.

As he stepped forth from the cabinet, and donned his fresh uniform, the work looked considerably brighter. Already plans began to formulate in his mind for the solution of this mystery. The planning was short-lived for the door signal sounded. Simon glanced again at his chronometer. 800. Punctual was the word for Cominc officials. He pressed the "open" button on his desk. The automatic locks slid back and the door opened.

Immediately, a gasp of pleasant surprise escaped Kirk's lips. "Roger! Well, Roger Lourde!"

"Hello, Sim," the fat man in the doorway replied. "Surprised to see me?"

"Surprised? Don't tell me you're the inspector that I've been worrying myself grayheaded over?"

"Yup, I'm a big shot now," Lourde

chuckled. "I got too big to climb transmitting towers and too slow to run around the office so they had to make me an inspector."

"Well, congratulations, man," Simon responded. "I always knew you'd make the grade anyhow."

"Thanks, Sim," Roger grinned. "You always were my biggest booster."

"Say, if the company had seen you work the way I did on the Arctic station, they'd have boosted you up five years ago."

Lourde's jovial face sobered a trifle as he replied, "Thanks again, Sim, but much as I hate to put a stop to all these compliments, I've some very serious stuff to take up with you this morning."

"You mean the interruptions? Well, I've got those all taken care of. It was just a little leak in a condenser that the usual test missed. It would build up an overload and then let it go, blanking out the circuit. I just happened to see it or I'd have missed it too."

Roger's face was grave and the silence was noticeable before he answered. "Sim, you and I have known each other too long to beat around the bush. I know all there is to know about those interruptions. I suppose I shouldn't tell you this but I've been here since 330. Just before I came up here, the Chief Engineer came to see me."

Kirk raised his eyebrows. "I thought he was sick in bed."

"No," Lourde replied. "After talking to him, I'm the one that's sick. I appreciate loyalty to the company but what that guy gave me this morning is strictly loyalty to himself. It sounded and looked good but he didn't know I knew you. I'll be honest with you Sim. Unless you tell me the truth about everything you did last night,

I'll have to put you in detention and recommend trial for treason."

SIMON WAS speechless. "Treason! I don't know what you mean!"

Lourde shifted his bulk on his chair. "This man, Heisman, followed you out of here last night and took a portable videograph with him. I saw the record this morning. I saw you go into the control tower, come out, and go down to the hangar. I saw a close-up of the card and your name wasn't on it. You got into a Transinc 'copter and flew up to the station. You went in and, a couple of minutes later, Heisman stuck the video lens into a ventilator slot and I saw and heard you talking with a man. I couldn't see him because the slot was in the way but I heard him and, take it from me, Sim, any judge that saw and heard that record, would send you to the disintegration chamber. The man's face was turned away when he came out and Heisman didn't follow him for fear of being seen but, no mistake about it, that was you on the record."

Simon was aghast with horror. He realized how damaging that record would look to any outsider.

Lourde went on. "Nothing you could say would change that record or keep you from being executed but there's one thing I want to know. Are you trying to pull something funny or are you on the level? I mean, are you connected up with any sort of underground movement?"

Simon found his voice. "Of course not, Roger!"

Lourde weighed this in his mind for what seemed an eternity. "Sim, I'm not going to say whether or not I'd do what you did last night, because I'm not supposed to be a judge. I'm a human being and I can understand a lot of things but some of our

judges aren't so human and I think, if I were in your place, I wouldn't want to chance not finding a human judge. No, I think, if I were you, big and strong like you are, and all that was standing between me and freedom was a fat man that doesn't get enough exercise—" He let the thought trail off.

Kirk looked at Roger intently. "You mean—" Roger nodded his head.

Simon took a deep breath and said huskily, "Thanks, Roger."

Lourde silently handed him a pair of glittering handcuffs. Simon quickly manacled the fat man in his chair, "Better gag me too," Roger suggested dryly.

Kirk did so as quickly as possible. From the doorway, Simon turned. "I don't know where I'm going but I'll bring back that man that broke into the station and I'll find out where his group hangs out—if it takes the rest of my life!"

Lourde nodded his head impatiently toward the door.

"Thanks again, Roger. I'll square myself somehow," Simon said just before he opened the door.

His trip to ground level was made in an agony of suspense. At any moment he expected the lift to stop but it didn't. No one seemed to take any particular interest in him outside of their usual courtesy. The new girl at the information desk smiled dazzlingly at him but he was too distracted to notice. The girl continued to smile even after he had left the building. She pressed a combination of buttons on her visor. A man's face flashed into being.

"He's on his way," she said briefly.

"Good," he replied. "I'll be at the station."

"What shall I do?" the girl asked.

"shall I just disappear?"

The man considered this and then nodded his head. "Yes, I promised your father that I'd take good care of you. You can go back the same way you came. It's still perfectly safe. If you stay there through the investigation they might suspect you."

"All right, George," she answered.

In a few minutes, with her hat at a jaunty angle, she vanished into the immense city.

CHAPTER IV

IN SPITE of the fact that the metropolitan tube speed was well in excess of one hundred miles an hour, to Kirk it seemed to be carrying him away from the city center at a snail's pace. The trip outside the building had been difficult enough but at least outside he could move around, dodge or hide. Here, in the carrier, he was imprisoned. For all he knew, it might be carrying him into the hands of the company's law. His only hope of escape lay at the air terminal and that was based on Commandant Wingate's obvious friendship. Indeed, the sight of the blustering old man would be welcome. There were too many unknown factors to deal with, so a planned escape was out of the question. How Simon envied the split-second accurate judgment of fictional heroes.

Since there was no immediate threat to his life, Simon found much time for speculation. The high, plaintive whine of the carrier's AC electro magnets blotted out all extraneous sounds, leaving Kirk in a world of his own. He had waited in the metropolitan tube terminal until no one sought to occupy the five-man carrier he now rode. For the present, at least, he was withdrawn from the eyes of the rest

of the world. For the present.

Even though Wingate might have been warned by now, there was a strong chance that he would still cooperate. That is, if Wingate were on duty! The thought was an alarming one. Suppose it were a stranger or, worse still, a man who knew him by sight! Strange, he had not thought of this before but it was too late now to turn back. He had to go through with it.

Simon loosed the needle gun from its small holster. It was fully charged. Well, anyway, that remained as a last resort. Of course the possibility was strong that some of the men he would have to overpower would be armed.

A sudden hiss of compressed air signified the end of the journey. The carrier slowed rapidly and drew to a smooth halt at the end of the tube. Simon stepped out into the small underground station, gratified that it was empty. The automatic escalator immediately started and carried him to ground level.

Outside the terminal were three auto taxis. He climbed into the front seat of the first and fished in his pocket for a half credit coin. This he dropped into the meter on the instrument board. A small green light on the meter indicated that the taxi was ready to go.

Ten minutes later, Kirk parked at the air terminal. Although an automatic record of his face had been filed in the meter of the taxi, he was untroubled. They would trace him to the air terminal soon enough anyway. He refused to consider the idea that they might already be waiting for him.

He ascended, unaccosted, to the top of the control tower. His hand gripped very tightly the small needle gun in his pocket. At the top of the

tower, he stepped into the Commandant's office. Simon felt an immediate sense of relief when he saw that Wingate was there. The Commandant's grizzled head was sprawled on his arm on top of his desk. He appeared to be sleeping. A very much diminished bottle of Scotch rested beside him. On the floor, a completely diminished whisky bottle leaned at a crazy angle against the desk.

KIRK SHOOK the Commandant gently without result, then more firmly, still without result. The Commandant was too large a man for more vigorous measures. A slight smile curled the corner of Kirk's mouth as he leaned down to the Commandant's ear and shouted, "Captain! She's out of control!"

Wingate reached up from the desk like a bear would if he sat on a hot stove. "Emergency stations!" he bellowed. "Man the lifeboats! Empty the forward fuel tanks! Heave—" The bellowing stopped abruptly and Wingate regarded Kirk with a bleary stare. "Hey, lad!" he roared affectionately. "Don't do that to a man!"

In spite of himself, Simon laughed. "'Tis not so funny as you think, my boy," Wingate resumed. "I was having a dream and I was on the bride again. I was just givin' landin' orders to my mate when you yelled in my ear. You like to cut ten years off my life!" Wingate relapsed weakly into his chair.

Simon's hearty laugh died away into a broad smile. "I'm sorry, Commandant," he apologized, "but it seemed the only way to wake you up."

"Ay, lad, it woke me up right enough. But unless I miss my guess, you won't be waking up Commandant Wingate anymore. By this time tomorrow, my boy, I'll be Deckhand

Wingate! Take my word for it!"

Simon regarded him incredulously. "Deckhand Wingate?"

"Yes, Deckhand! They're going to bust me," he replied lugubriously. "The Director's office called this morning."

"It isn't about that ship you loaned me, is it?" Simon inquired.

"No, my boy. That was perfectly legitimate. Yesterday, I signed the routing papers and dispatched a transport to Power City. Then, last night, I got special orders to bring it back. It had contraband of some sort on board. I and my men couldn't find it and couldn't raise it on the video. We ain't seen hide nor hair of 'em since. The Field Commandant at Power City swears up and down that he never saw the ship or the orders. The Director thinks I've been shipping contraband but they can't prove it. Otherwise, they'd shoot me. As it is, they gave me twenty-four hours to get that ship back, or else!"

"And you haven't been able to find it at all?" Simon asked. "Not even wreckage?"

"Not a sign!"

Kirk whistled softly through his teeth. "That is bad," he muttered. "What sort of contraband was she carrying?"

"I'll be blasted if I know!" Wingate replied. "All I know is that it was plenty hot." He regarded Kirk in silence for a moment and then resumed. "Simon, my boy, you've known me for quite a long time, off and on. You know I wouldn't do a thing like that, don't you, lad? They didn't put me here because I was the smartest Captain they had, but because I was honest. Would you—maybe—testify for me at the inquiry? With someone like you to put in a good word, they might not bust me."

SIMON SIGHED. "I can't, Wingate," he said softly. "I've been charged with treason by my own company."

"My God!" exploded Wingate. "But they can't do that! Not to you!"

"They have," Simon answered.

With a shrug of his shoulders, Wingate accepted his fate. "Well, lad, shall we go out and do the town while we've got the time?" he asked with a half-hearted smile.

"I'm afraid I haven't got even that much time," Kirk said. "I escaped from an inspector and left him tied up in my office."

"Lad! You've got to get out of here!" Wingate announced abruptly. "Here! I'll get you a fast plane." He reached toward the flight order forms.

"No!" Kirk stopped him. "In your predicament, they'd send you to the chamber if you helped me."

Wingate's hand hesitated. "Are you innocent, my boy?" he asked.

"Yes," Simon replied.

"Suppose you had a little time," the Commandant inquired, "do you think you could prove it?"

"I think so."

"Good enough!" Wingate exclaimed. He rose from his desk and fed a flight order into the auto-file.

"I can't let you do this!" Simon protested.

"Don't worry, lad. I'm going with ya. Don't you think I deserve a chance to prove my innocence too?"

Kirk looked at him in astonishment. Wingate was transformed into a whirlwind of activity. He made five calls on the visor in rapid succession. To each, the same cryptic remark was made. "Special mission T-338. Immediately. Have your gear and be ready to go in half an hour!" To each call, a different voice replied, "Ay, Captain" or "Yes, sir."

The calls completed, Wingate left

his desk and lumbered to the laundry slot beside the 'fresher cabinet. He jabbed the service button viciously until he had exhausted the supply of uniforms. Then he sprang to the closet and emptied it of its contents which he draped over his arm along with the uniforms. Lastly, came the Captain's bag into which the clothes were hurried unceremoniously. The bag was snapped shut and heaved over his immense shoulder. He stopped in front of Kirk. "Hm. You look about the size of my Chief Assistant," he remarked. Kirk was dragged precipitately behind the hulking figure to the escalator.

"What—!"

"You'll see!" Wingate roared.

They entered an unoccupied office. Wingate went through the same emptying procedure that he had just finished in his own quarters. At last he jammed a bulging bag into Simon's hands. "Here, lad. You're a sailor now!"

THEY PAUSED at the door. Wingate withdrew his wallet and counted out a thousand credits which he laid on the unoccupied desk. "That ought to buy him a new wardrobe," he chuckled, and they left the office.

Once again they rode downward on the escalator. At the bottom of the tower, they went through a door marked "Ready Room." Inside, Wingate bellowed, "Pull off them duds, son. We gotta look like sailors!"

Simon obeyed, wonderingly. The Commandant explained as they changed clothes, donning uniforms they had brought in the bags. "Them groundhops on the field can't see no further than the stripes on your sleeve but we gotta look the part if we want to get away with this."

The Commandant studied himself briefly in the mirror, nodded his sat-

isfaction and then began fishing in his bag. He came up with a sealed box which he tossed to Kirk. Reaching in again, he produced another for himself.

"Just hold on a minute, lad, and I'll rig you out after I get myself fixed up."

Wingate emptied the gleaming contents of the box into one of his hands. With a dexterity born of long experience, he affixed the insignia to the lapels and breast of his uniform. With the same dexterity, he pinned the insignia on Kirk's uniform. He stood back and appraised Simon for a moment and then shoved him before a full length mirror.

Simon felt ridiculous in the resplendent uniform but he reflected that it was probably necessary. Wingate instructed him briefly in the procedure.

"My men will be by the ship when we get there. Walk in front of me until you reach the gangplank. Then come to attention and return the salute of the men who will be waiting. Do a right face and salute me. Stand at attention until I'm aboard the ship, then you follow me. That's all you have to do, but for God's sake do it right! You're supposed to be my Second in Command. Think you've got it now?"

Wingate gave him a demonstration of the proper salute and stance.

A slight smile touched Simon's lips. He saluted briskly. "Yes, sir!" he replied.

"Good boy!" Wingate roared, banging Kirk on the back. "Now let's get going!"

Outside the building, they could see a huge strato ship with the gleaming T-338 on its bow.

"That's it," Wingate muttered out of the corner of his mouth. "Now go to it!"

Simon took his cue and marched to-

ward the ship. It couldn't have been more than three hundred feet, but to Simon it seemed to take hours before they stood in the shadow of the hull. As he returned the salute of the five men lined before the gangplank, he waited in an agony of suspense for a hand to be placed on his shoulder or a gun to be thrust into his back. Wingate seemed untroubled. He returned Simon's salute and walked through the port, serene of face. Simon followed him as rapidly as he dared. His feet had hardly touched the decking inside when he heard the dural gangplank being drawn inwards.

THROUGHOUT the ensuing activity, Kirk stood motionless by the portal until Wingate's bellow snapped him out of his indecision.

The gleaming walls rang with the sound. "First Officer Kirk! Front and Center!"

Before Kirk had a chance to think, he was running headlong for the front of the ship. In the gadget filled control room men were efficiently disposing of their duties as they made adjustments, pressed switches and observed instruments. Wingate's eyes didn't stray from the master control panel. Finally, he seemed satisfied and jammed a large red button on the side of the board. Instantly bells began to ring throughout the ship and varicolored lights went on all over the control room. The decking quivered slightly under Simon's feet, then it lurched. They were under way.

Kirk watched through the curved transparent panels that formed the nose of the ship. Fragile though they looked, he knew that nothing but a head-on collision could even damage them. The field dropped away under them quickly. The great nose swung around and faced what he judged to be west. The throbbing of the deck-

plates increased in intensity and the force of acceleration sought to throw him backwards. He grasped the hand-rail for support.

Many minutes passed before Wingate was satisfied with the performance of the ship and pulled the red locking bar on the controls. The men at their stations did likewise with theirs.

Wingate turned from the panel. "Markham," he ordered crisply. "Take the first watch."

"Yes, sir," echoed the tall, thin man who had been standing at the ascension controls. The rest of the men left.

Now that the strain of the takeoff was passed, Wingate resumed his joviality. "Simon, my boy," he rumbled. "It's time you got acquainted. This is Chief Navigator Markham at the controls."

Markham turned his head long enough to nod. "How do you do, sir."

"I'm not sir," Kirk protested. "I'm only along for the ride."

"As long as you wear that uniform with the Captain's permission, you're the Second in Command," Markham contradicted without looking away from the controls.

"He's right," Wingate grinned. "You're a real sailor now."

Simon was horribly embarrassed. "Any of these men," he protested, "could do the job better than I could."

"Uh, uh," Wingate replied. "The law says that the Commanding Officer of a ship must be a graduate engineer and that just leaves you and me. And don't tell me you don't have an engineer's degree!"

"But I don't know how to command a ship!" Simon protested.

"Now, my boy, I happen to know very well that you went through Transinc's Air School before you took charge of Communication there."

"Well, yes," Kirk admitted. "I can

fly a 'copter, that's for sure."

"Lad," Wingate explained. "Our Chief Engineer can't navigate, the navigator can't fix the engines, the Quartermaster can give us air, food and water but he can't navigate. Same goes for all the rest. Besides, there's an old law that says if a man is transferred to another company, he must be given a station of equal or greater authority than the one he left. The one you got ain't as good as the one you left!"

KIRK SHRUGGED his shoulders. "The only thing you haven't got," Wingate added, "is the proper procedure for Officers in Flight. And every officer's cabin has a copy of them rules, so if you want to be a *real* sailor, just go down and borrow up on 'em."

Simon couldn't be sure but he thought he detected a trace of a smile on Markham's face. He turned back to the Captain. "Well, since I am destined to be Second in Command, can I know our destination?"

"Damn if I know," Wingate answered. "If you got any suggestions my boy, make 'em!"

Simon became thoughtful. "Well sir—"

"Don't keep calling me *Sir*," Wingate interrupted. "Markham is too much in the habit to break him. Besides, there ain't much point in being formal now."

"I think," Simon began again, "or that is, I have a hunch that your disappearing ship and my disappearing company official are tied together in some way."

"What disappearing company official!" Wingate bellowed.

Kirk briefly outlined his encounter of the previous night. He ended with, "So you see, Captain, I'm convinced that was Arthur C. Belcourt I talked

to and somebody wanted me out of the way so I couldn't reveal that fact. Naturally I would mention it in my own defense at the trial. Oh, sure, I know the man who let me escape but I don't know who suggested it to him. It all seemed so logical then but I wasn't given time to think it out until after I had escaped."

"Yeah," the Captain admitted. "It does look kinda like one of those put-up jobs but that doesn't answer my question. Where are we going?"

"The only thing I can suggest," Simon answered, "is to make it appear as though we crashed at sea and then go to the relay station and see if we can trace Belcourt from there. He must have come in a flier and if we can find his landing tracks, we'll know from what direction he came. We might find a clue inside the station if we search carefully. There isn't anyone living within a thousand miles of the station so I'm sure we'll be safe."

"I still don't quite see how our troubles are connected, my lad," Wingate stated dubiously.

"I admit the logic is pretty thin," Simon answered, "but you remember I said Belcourt professed to be part of a hidden group and it would take a fair-sized group to waylay a transport. If the transport had gone down at sea, you would have found traces."

"Yeah, I know," Wingate said, "and I'm certain she didn't go down at sea."

"A transport is too big to hide anywhere except in a city," Kirk continued, "and if it were in a city, everyone would have to be in on the plot to hide it, even the representatives of the other companies."

"About the only place that's left," Wingate commented, "is some remote spot somewhere, maybe even an island, but it would take us years to search for it. Besides, if we ever got

near the regular shipping lanes, we'd be spotted for sure."

Simon thought for a few minutes. "I'm afraid the only hope I can offer is to search the station. If we can find out where Belcourt came from and where this group of his is, we might be able to find the ship. At least, that's a good place to start."

"YOU MIGHT be right, lad," Wingate turned to Markham. "What do you think, Markham? You're in this too."

"Whatever you say, sir, is all right by me," Markham answered without turning his head. "I'm glad enough to be on the bridge again without asking questions."

"Very well, then," Wingate said. "Release a crash marker."

Simon, watching through the transparent panels, saw a small, red cigar-shaped object plummet away from the ship. It spun lazily downward and struck the surface of the ocean with a splash. A brilliant yellow spot began to spread on the top of the water. This patch of color would persist for days and, if found by searching ships, it would be evidence that some craft had been lost at sea.

"What are the coordinates of that station?" Wingate asked abruptly. Kirk rapidly gave him the geographical position of the relay station.

"Did you get it?" the Captain inquired of Markham.

"Yes, sir!"

"Set our course and speed accordingly! We don't want to land before 2300," Wingate instructed.

"Yes, sir!"

The ship began its slow swing northward. Wingate touched the communicator stud. "MacNair, Bryant, Anderson, Barronoff. Assemble in the mess hall!" He snapped off the switch and turned to Simon. "Come on, my boy.

Let's combine business with pleasure. We'll get a little chow and you can meet the crew at the same time."

Simon followed Captain Wingate down the companionway.

CHAPTER V

THE MEAL prepared by the ship's automat was indeed satisfying, particularly in view of the small size of the unit. Simon leaned back in his chair, the inner man comfortably filled. As had been the custom of sailing men for generations, nothing but small talk had passed around the table during the meal. Kirk now found it true that the future looked much better on a full stomach.

Now that all were finished and the machine had removed the last vestiges, Captain Wingate leaned back in his chair and lit a cigar. "Ups, forgetting my manners, boys," he said, passing around the plastic container filled with smokes. The men each accepted one and so did Kirk. He sniffed the aromatic stogie and raised his eyebrows in approbation.

"Two credits apiece," Wingate remarked with a pleased smile. "Not likely to be any more for a while so might as well use 'em up."

As Kirk inhaled the fragrant smoke, Wingate cleared his throat noisily. "I think it's about time I started letting my hair down, boys. Your First Officer here is the famous Dr. Simon B. Kirk of Cominc."

A slight stir went around the table. Then the gruff voice of the Chief Engineer, MacNair, interrupted. "Canna be, Wingate me man, thut because yourrr own education wuz neglected thut we canna recognize the face of a famous man when we see it?"

"If you ever saw his face before, it was over a borrowed 'visor, you tight fisted Scotchman!" Wingate roared.

"Dinna be castin asperrrrsions on the name of MacNairrrrr, ye overrr-stuffed windbag!"

"It seems to me, you glorified grease monkey, that you've forgotten the last time I threw you down the gangway into your dirty engine room!"

"Thut does it!" clamored the Chief Engineer. "Forrr yearrrs I ha put up with yourrr dirty insults, but now ye imply thut the engine-room of Mac-Nair is like a hog pen! Coom oot-side! Weel settle this man to man!"

Simon was stunned but no one seemed to take any regard of this uproar but himself. The others finished their coffee and cigars as though the two belligerents didn't exist.

Kirk could stand it no longer and leaped to his feet. "Gentlemen, please! We have important things to discuss!"

"Ha ye no fearrrs," MacNair replied calmly. "I would na hurrrt the big lout. He's a bonnie Captain in spite of his ither defects."

This goaded Wingate further. "Why you wizened up miserable skinflint!" he growled. "Just wait till we're alone! I'll beat some respect into ya if I have to pound your brains out against one of your precious engines."

MacNair was fully as large as Wingate and Simon couldn't have called him wizened up even in the wildest stretch of his imagination. His lined face and tousled hair gave him an appearance of ferocity that was not at all in keeping with his character.

THE THIN, scholarly looking man at Simon's right who had been identified as Bryant, the Quartermaster, gazed at the two men over his cup of coffee, weighing his words carefully. "To the best of my knowledge, this bickering has been going on for more than fifteen years and I fail to see that either of you has subdued the

other. Do you suppose if I were to provide you with guns that we might get it settled once and for all?"

Anderson, the First Engineer, who sat across the table, ran his thick fingers through his blond mane and in a voice like the deepest tone of an organ thundered, "SHUDDUP!!"

The power of the voice made the table shake under Kirk's fingers. At least, here was a voice with greater power and resonance than Wingate's.

Barronoff, the Signal Officer, stroked his neat black beard and remarked cordially to Simon, "For men of our intellectual attainment, Dr Kirk, it is distinctly disturbing to be in such an atmosphere. Don't you agree?"

Simon didn't have a chance to reply.

"I would na be referrin' to intellectual attainment, if I werre in yourrr place, ye a man thut signs his name wi an X."

Barronoff polished his immaculately manicured nails on his equally immaculate sleeve. "You may have some trouble, Dr. Kirk, in understanding the speech of my erstwhile comrade from the lowlands of Scotland but I shall be glad to act as interpreter at any time."

"All right, lads!" Wingate bellowed. "Let's stow it for now. We don't want to be giving Dr. Kirk a bad impression of us."

"Ya!" echoed Anderson. "Shuddup!"

Bryant's soft voice interposed. "Don't mind this too much, Dr. Kirk. We have found formal discipline too trying on a long voyage and the first day is sort of an ice breaker. The only one who doesn't join our camaraderie is Markham. He's always rather shocked at our conduct. I doubt if you'll believe me but we're really quite a smooth running organization."

Simon relaxed and smiled. "I agree it was something of a shock. I'd always pictured you ship officers as being a sternly disciplined lot."

Bryant laughed. "I'm afraid that's all show. The days of iron discipline went out with Captain Bligh. Nowadays, we're more technicians than sailors, particularly on ships like this."

"Yes," Simon replied. "I've noticed that the ship seems to have no crew other than ourselves."

"This baby's almost entirely automatic," Barronoff said. "She doesn't need anything but men to control the various functions. Of course, if there's a breakdown, there's a little more dirty work than there would be if I had a few assistants."

It was plain that Barronoff didn't care for what he called 'dirty work'. Simon smiled at the thought of Barronoff grubbing around in the innards of the ship with his immaculate fingers and getting grease on his immaculate uniform.

Wingate laid an affectionate hand on Simon's shoulder. "I guess it's about time we let 'em in on the secret, eh, boy?" He turned to the others with a broad grin. "Men, Dr. Kirk and I are a couple of hunted criminals!"

MacNAIR shook his head. "Tsk—tsk—tsk. I always knew ye would come to a no good end. Weel, it's too late now. Ye might ha the courrttesy to tell me in whut ye has involved me!"

Wingate glared at the Chief Engineer.

"I'm afraid it's all my fault," Kirk interrupted. He briefly recounted his experiences to the men, ending with, "Then Commandant Wingate decided to go with me to see if we couldn't find some clue to establish his innocence too."

MacNair looked at Simon thoughtfully. "I can weel underrrstand yourrr predicament, lad. It could happen even to MacNairrr. I dinna blame ye one bit, but this ignorrramus at the head of the table has to loose a transport! 'Tis inexcusable!!"

Wingate squirmed but could think of nothing to say.

Bryant gnawed at his knuckle and gave Kirk a penetrating look. "Are you convinced that the man you talked to at the station was the missing Belcourt?"

"That's the only explanation," Kirk replied simply.

"Even if it wasn't he," Barronoff added, "he certainly must know something of his disappearance to be in possession of that key. May I see it please?"

Kirk handed it to him. Barronoff tried the same test that Simon had. The bearded man studied the key. "It's certainly the one," he remarked incredulously.

"I'm sorry you are involved in this," Kirk said. "It's a very serious matter and, if we are caught, you'll probably be imprisoned."

Bryant laughed. "Our part in this is quite simple, Dr. Kirk. Captain Wingate called us and told us to sail and since we have all been on the beach for a long time, we jumped at the chance and didn't ask questions. We'd get off pretty well with that story."

"Just a minute," Barronoff interrupted. "We no longer have our commissions, you know, and sailing a ship without one is termed piracy. What's more we knew it before we sailed."

Wingate regarded his men. "Well, that's the setup, boys. What do you want to do? Stick with us?"

The chorus of assents was dominated by Anderson's bass voice. "Hell, yes!"

"One more thing, gentlemen," Simon insisted. "Don't keep calling me Dr. Kirk."

"Verrra weel, me boy. Simon it is, then MacNairrr is the firrrst to de-clarrre it."

"Ah, SHUDDUP!" Anderson rumbled.

MacNair glared balefully at his assistant as they arose to leave the mess hall. "Watch yourrr tongue, ye thick headed lout, or one of these days Mac-Nairrr weel take offense."

Simon chuckled. In spite of himself, he liked these men.

CHAPTER VI

THE MASTERCLOCK set high in the control room was barely past 2230 when Simon arrived from his cabin. While the ship had been circling aimlessly many miles above the north Pacific Ocean, Kirk had been studying the ship's Officer Guide and other data pertaining to the construction and operation of the vessel. His special memory training had enabled him to be as familiar with these as were the other men aboard. The technological aspects were, of course, to him, simple. It had taken more time to commit the proper commands to memory. Simon reflected that while he might not be as capable as Wingate in this matter, he was at least not useless.

He stepped to the First Officer's prescribed position in front of the intercom panel and familiarized himself with the controls, preparing to relay Wingate's landing orders. Simon connected with the Signal Officer's board.

Barronoff's sardonic face and beard appeared on the plate. "Ah, my friend, Kirk! What can I do for you?"

"Minus 90 icon. Full penetration."

"Oh ho! You've been reading the

rule books, I see!" Barronoff's unseen hands made several motions and his face vanished to be replaced by a blue, tinted picture of the ocean rolling on a sandy beach. The minus 90 icons in the bottom of the hull projected their searching eyes downward in full amplification, penetrating mist, haze and darkness, seeing where optical instruments detected only blackness. The scene on the plate rapidly moved inland and Kirk watched the rolling hills of sand, fascinated.

"It's unbelievable," he thought, "that once this was covered with lush green vegetations and people once worked, lived and played here." That was before the neucleatrons and the slow neutrons had done their insidious work. Early leaky atomic generators had scourged and sterilized the world, leaving a barren wasteland. Even today, the altered soils would support no plant life.

Simon glanced at the clock and cut short his reflections. He pressed the audio stud that connected him with the Navigator. "Visual coordinates on a minus 90 icon," Kirk requested.

"Yes, sir!"

There was a brief pause and then hair-like lines of light seemed to attach themselves to the desert he had been observing. Each line carried a numbered designation, giving it a geographical position. As he watched, the original lines slid out of sight and new ones appeared at the top of the screen. Simon observed that they were almost over the relay station. He addressed the Navigator again. "Flight factors, please, Mr. Markham."

His reply was as expressionless as ever. "Yes, sir." After an imperceptible pause, Markham's pedantic voice began to chant the altitude, speed, drift and rate of descent, occasionally interspersed with other data.

Then something crashed into Simon's back with the impact of an avalanche, nearly sending him through the intercom panel.

"Right on the job, I see!" a booming voice deafened him. "That's the spirit!"

Kirk saw the room through a red haze. He turned on Captain Wingate like a wounded lion. "You moronic elephant! Keep your hands to yourself! What do you think I am, a punching bag? I'll break—" Kirk's rage died. "I'm sorry Captain. I didn't mean to offend—" but Wingate was beyond hearing. He clutched his stomach in an agony of mirth. His roars of laughter made loose objects in the room rattle.

SIMON STOOD by appalled at the performance and waited for Wingate to get his breath.

Finally Wingate returned to normal. "Good boy!" he said, between gasps for air. "Got some spunk in ya after all. Knew you'd get some life into ya if ya got out from behind those books for a while."

"You're not angry?" Kirk asked.

"Hell no! Now you're talking like a man instead of a college professor. We'll make a Grade A sailor out of you yet." Wingate, still chuckling, walked to the master control panel.

"Well, I'll be damned!" Kirk said aloud. Strangely enough, he found himself rather pleased instead of horrified at his own conduct.

Suddenly there was no time for introspection. Wingate began the complicated and delicate landing procedure. The great hull swayed slightly as it sped downward through 18 miles of rarefied air.

Simon relayed and routed the Captain's orders as fast as he received them. He had no time now for watching; no time even for thinking. How

long this went on, Simon didn't know, but just when he thought he would break under the strain, the bedlam stopped. The floor jarred slightly under his feet. They were down! Kirk's collar clung to his neck like an ancient lettuce leaf. He wiped his wet palms on his hips. Fishing in his pocket, Simon found a self-lighting cigarette.

"A little tough the first time, isn't it?" a quiet voice asked over his shoulder.

Simon turned on his heel and saw Bryant regarding him, smiling. "Huh? Oh, it's you. Yes, it was pretty tough. I don't know if I could do it again or not."

"Oh, you'll swing it all right," Bryant assured him. "You didn't make one mistake. I haven't seen a better first try in fifteen years."

They were joined by Wingate and Barronoff. Markham seemed to be busy scribbling on a report blank.

"Nice going there, sailor!" Wingate boomed.

"Thanks," Kirk grinned. "I was just lucky."

"Ah, befitting modesty for the hero of the day," Barronoff remarked.

Simon was more than a little embarrassed by the attention he was receiving. Servility and subordination he was accustomed to, but admiration and appreciation from comrades was something new—and a trifle discomfiting. He had never before been accepted into a group of men, particularly such a close-knit one as this, so it was not unusual that he should have some difficulty with the situation.

Markham joined the group and as usual he was all business. "We're at the coordinates as directed, sir. Shall I make a preliminary survey?"

"Are there any aircraft near by?" the Captain asked.

"I saw none on the ground, sir, and the detectors show there are none operating in the vicinity."

"Good," Wingate replied. "Well, Simon, it's your show from now on."

KIRK HESITATED and then selected Wingate and Barronoff to accompany him on the inspection of the station.

"Just a minute, lad," Wingate suggested. "I'll get some side arms."

"Oh, I don't think that will be necessary," Simon said.

"You didn't expect to meet anyone the last time you came here but you did," Barronoff reminded him.

Kirk shrugged his shoulders. "Well, the majority rules, I guess. But we'll have to make it fast. I'd rather not be caught around here! That would make our executions a certainty."

"If we're caught *anywhere*," Barronoff remarked, "I assure you it is a certainty!"

Simon raised his eyebrows. "You're a cheerful fellow to have around."

Wingate's voice boomed from the control room entrance. "Yes indeed, lad. You'll find that out as you get to know him better. He's had us dead and in our graves a thousand times in the last fifteen years. Why I remember once—" Wingate launched into a long tirade on one of his former exploits in which one could see that Barronoff was not the hero. The bearded man's discomfort increased with every passing minute but he said nothing.

The tirade was cut short. "Weel, weel! I see yon windbag has sprrrung anotherrr leak. And ha many heathen enemies ha ourrr noble Captain slain so farr, me lad? Has he coom to the parrrt about the wee lassie stealin' his pantaloons while the drrrunken bum slept?"

Wingate froze. No sound came from his gaping mouth. His face had the same appearance Caesar's must have had when Brutus plunged the knife into his body. MacNair enjoyed this immensely. Before the Scot could elaborate further, the Captain found his voice. "MacNair!" he brayed. "I'll break every bone in your scrawny— (censored) body!"

"I speak only what is the trrruth," MacNair replied with glacial affrontery. "And I ha' in me cabin a picturrrre of a cerrrtain Captain, standin' in his drrrrowers, surrounded by the law. 'Tis a much youngerrrr and less repulsive Captain but there's a cerrrrtain simil-arrrrity which canna be overrrrlooked."

The words hung in the air while Wingate reddened and swallowed with great difficulty. "I've got important work on my hands!" he croaked, "but I'll see you later, you Scotch——!"

"Wi or wi-out yourrr trrrousers?" MacNair asked as he left the room.

Wingate made strangling noises. Barronoff burst into fresh gales of laughter as he followed. Simon could contain himself no longer and joined in the general merriment.

"I'll show you all!" Wingate threatened, "you ungrateful hyenas!" He twirled the unlocking wheel on the port and flung it open. Then he turned on Kirk. "And as for you! A man I thought was my friend!" Wingate's foot slipped on the freshly painted decking and he vanished through the gaping port. Simon and Barronoff rushed to the opening. The ship was perched on a hill of sand which slanted steeply away. About ten feet below them, spread-eagled on the sand, Wingate lay. "Laugh some more, ye gibbering apes!" he screamed. "Get MacNair out so he won't miss the fun! The old fool will die laughing if I've broken a leg!"

SIMON AND Barronoff dropped to the ground and tried to help Wingate rise.

"Get away from me, you fools!" Wingate roared. "I may not be young but I'm no invalid!"

Kirk was genuinely worried about him. "Are you sure you're not hurt?" he asked anxiously.

Kirk's concern seemed to please Wingate. "No lad. I'm tougher than you think. It's nice to know that somebody cares if I live or die, though." He beamed at Simon and then scowled at Barronoff. "What about you, beanpole! Don't you care if I've broken my back or not?"

"Well, it would be inconvenient," Barronoff began.

Wingate's disgusted snort cut him off. "That's all I am to these village idiots," he growled. "Just a convenience. Well, come on. Let's get going so we can get out of here before someone comes along."

They walked the short distance to the small building. Kirk produced the key and opened the door. The others filed in behind him as he snapped on the light.

"Well, this is it," Simon remarked. He turned toward the huge transmitter in the center of the room. Any remarks he might have had in mind were forgotten. Standing in front of the transmitter was the same man who had been there the night before. This time, however, he had the blaster trained on Simon.

"I've been expecting you," the man said with a half smile.

"It looks as though you were expecting *somebody*!" Barronoff sneered.

"Quite right, Mr. Barronoff! We were."

Barronoff was reduced to silence. He stood dumbly, staring at the man.

"Oh yes, gentlemen," the stranger

continued, "I know you all. It's really nothing to be astonished over. The world is full of free thinkers. It's not too unusual that one of them should be aboard your ship."

Wingate came of life with a roar. "A spy! A spy on my ship? Why I'll—I'll—break his back!"

The stranger continued placidly. "I'm afraid not, Captain Wingate. At least, not while this gun is pointing at you." The gun shifted slightly and centered on Wingate.

Wingate began another tirade. "Just wait! Just wait till I get back! I'll grill every white-livered mother's son aboard my ship! No one is going to betray Wingate and get away with it! I swear, if it takes to my dying day, I'll keep at it and when I find out—!"

As usual, Wingate was interrupted. "Ald faithful is spoutin' again I see. Regular as clockwork!"

Wingate whirled. "MacNair! You Judas!"

MacNair's reply was savage. "If ye could use yourrr eyes, ye windy hippopotamus, you'd see me hands in the airrr! Do ya think I'd be chinnin meself at a time like this?"

"SHUDDUP!" a rumbling voice behind MacNair commanded.

MacNair snapped back. "You keep a civil tongue in yourrr head, ye grease monkey, orrr one of these days MacNairrr will lose patience!"

BRYANT'S clear voice cracked a command at the two engineers. "Line up over against that wall! You too!" he snapped, indicating Barronoff and Simon. Markham entered in front of Bryant and walked over to where the others were standing.

Wingate deflated like a balloon. "Bryant!" he said, almost sadly.

"Yes, Captain," Bryant answered. "I'm your spy."

Kirk thought he detected a mistiness in the old Captain's eyes. He realized that the affection Wingate felt for his comrades of old was not a shallow one. Bryant too seemed moved. There was much emotion in his voice when he spoke. "I'm sorry I had to do it, Captain. It wasn't easy but I believe it to be your own good. I hope I can make you understand."

"Never!" the Captain bit out.

"I'm afraid you'll have to talk to them, Dr. Belcourt," Bryant said, softly.

Barronoff pounced on this. "So you are Dr. Belcourt!"

"At your service," the tall man smiled.

Kirk broke in. "What's this all about! You're supposed to be dead! Where have you been?"

Belcourt smiled again. "Why does a chicken cross the road? To get to the other side. Correspondingly, I disappeared to get to the other side."

"What other side?" Simon insisted.

"Well, there are a lot of things I can't explain to you now. What I said about that book's changing my life is literally true. I tried enlisting the aid of others so that we could form a colony somewhere and live the way we wanted to. This was done in secret of course. We looked around and found out that such a group already existed so we made arrangements and conveniently disappeared. I know our disappearance caused some comment but it appeared natural enough.

"You probably won't believe it but our group has grown and more are coming every day. At first, all that we were interested in was seclusion so that we might live our lives as free men but now we know that this is a selfish point of view and it's impossible. While we were a small group, everything was simple but now

that our numbers have swelled, we find concealment is becoming more of a problem each day. Soon, at the rate we're going, we'll be discovered. If that should happen, don't think the corporations would hesitate to blast us out of existence.

"We represent a definite threat and survival is the first law of nature. Everyone is agreed that something must be done, and now, but what is something else again. We don't want to be blotted out but, on the other hand, we don't want to kill everyone else in order to stay alive. We need young men, geniuses if possible. Oh yes, we have lots of young people, but most of them have been raised in our colony and they don't realize the odds that are against us. They are brave and their plans are good but they show a definite lack of understanding of the problem. We who are older find it hard to plan anything because of just that, our age. We know we're not going to live much longer and we're inclined to hope and pray that everything will turn out anyway.

"The Board of Governors of our group has decided upon a plan which we hope will solve our dilemma. That is why you are here, Dr. Kirk. You are the one we picked to help us. You are experienced, a man of genius, and from you we hope to find the solution. And that is why you were lured here."

"**T**HEN YOU deliberately created those interruptions?" Simon asked, somewhat puzzled.

"Yes," Belcourt answered. "Some years ago, I invented a simple device that I call the loader microphone. It will store up to thirty minutes' conversation, then release it at incredible speed. I attached this to your visual transmitter and sent my reports which attracted your attention. The transmission rate is so high that no one

could recognize voice patterns on the screen."

"That's something I should like to see!" Simon exclaimed.

"Oh, we have lots of things that will interest you," Belcourt smiled. "I'll be glad to show them to you."

"Is that supposed to repay me for making me a hunted criminal?" Simon asked bitterly.

"I'm sorry for that," Belcourt said.

"We didn't know about Heisman's being outside until too late. When we found out about it, Roger Lourde had himself substituted for the inspector originally assigned to the job. We assisted in your escape as much as we could. George Bryant was to have followed you here but circumstances played into our hands and he came with you."

Wingate let out a roar. "Are you the ones that stole that transport?"

"Yes," Belcourt smiled, "but since it was carrying contraband, in this case guns, you would have been in more trouble than you were if we hadn't captured it. Whether you know it or not, Power City is arming in defiance of her agreements."

"How do you know?" Wingate asked.

"Oh, we have ways of finding out things," Belcourt smiled. "In our position, we have to keep up with what's going on. But I'm not much of an authority on what's going in the outside world. That's left up to a man on our Board experienced in military tactics. I think you might know him. He's General Kirk."

"WHAT!!" Simon was stunned.

"Yes," Belcourt said gently. "Your father, Simon, is one of our Governors."

"But... but... that's impossible! My father's dead! He's been dead for thirteen years!"

The other members of the crew

shifted their weight nervously.

Belcourt smiled. "He was quite alive when I left him this morning. Aren't you forgetting that I've been dead for eight years?"

"Bbbut... but... the funeral!"

"You weren't there," Belcourt explained. "Don't you remember? You were away studying. Your father's somewhat peculiar will demanded immediate interment of his body and it forbade that anyone view the remains. The ones who saw the body buried were strangers to the General. As a matter of fact, the man was an old fellow officer of your father's who was staying at the house as a guest. He died of a heart attack while he was asleep and your father saw a golden opportunity to join the group of free men. It was just getting started then. So, he conveniently disappeared. The deceased had no family and few friends."

"Hmmmm. Verra interrrrrasting if trrrrue!" MacNair sneered.

"GENTLEMEN, that brings me to the point of this monologue," Belcourt added. "You'll get a chance to see whether or not I'm telling the truth because we're going to Free City. Now you can go as captives if you like. Bryant and I can spell each other watching you but it'll be difficult. On the other hand, if you will give me your paroles until we reach the city, I'll ride just as a guide. What do you want to do?"

The men looked at one another. It was plain there wasn't anything they could do.

"Well, since we'll be kidnapped in any event," Kirk suggested, "I see no reason why we shouldn't avail ourselves of your amnesty." Simon looked at Wingate. The Captain gave him a smile and nodded his head. "You have our paroles," he said.

"Thank you," Belcourt smiled. "It will be a lot easier on all of us. Now, purely as a matter of custom, gentlemen, would you deposit your weapons with Mr. Bryant on the way out?"

They filed out the doorway one by one, handing their guns to Bryant as they did so. MacNair's contribution took a little longer than the others. It included two small needle guns, an archaic forty-five-caliber automatic, a hideous knife, a blackjack and a pair of brass knuckles.

Wingate eyed the brass knuckles suspiciously. "You dirty snake!" he exploded. "You had those on that night at the Seamen's Bar! No wonder I was out for twelve hours!! Just wait! When we land again, it will be man to man and none of your dirty tricks!"

"If ye don't lose yourrr courage tween now and then, it'll be man to missing link!" MacNair bit out.

Wingate growled and grit his teeth as they entered the ship. Simon was beginning to look forward to the long-postponed encounter with anticipation instead of anxiety.

The physical exhaustion and lack of sleep began to take their toll of Kirk. He went through the takeoff in a fog. Dr. Belcourt stood in the back of the control room, looking at the proceedings with interest. With the takeoff completed and the course set according to Belcourt's instructions, Simon began to doze at the intercom panel. He woke himself with a start. He was beginning to doze off again when MacNair entered the room.

Belcourt looked at him sharply. "I thought you were in the engine room with Bryant and Anderson."

"I was," MacNair replied innocently, "but I convinced that bonnie lad, Bryant, that the worrrd of MacNairrr is his bond. Besides, I thought I might rrrender ye a service. I stopped by me cabin and extrrracted a

wee bottle of good hieland Scotch frrrom me bag."

An atmosphere of brotherly friendliness descended on Captain Wingate that was truly amazing. "MacNair, you're a true friend," he announced. "I knew you wouldn't forget your old pal, Wingate!"

MacNair regarded the Captain with a hostile stare. "Forrr ye, ya hog, I ha made a prrrrominent marrrk on the bottle, doon to which level is yourrr sharrrre!"

The engineer displayed the bottle. The mark was barely a sixteenth of an inch below the top of the liquid. Wingate made an inarticulate groan and snatched the bottle out of the Scot's hand. In what seemed a single motion, he opened the bottle and lowered its contents a good inch. The engineer lunged toward him, arms outstretched.

"One more step and I'll break this bottle over your penny-pinching head!" Wingate warned.

Mac NAIR stopped abruptly. "'Tis not that I fearrr yourrr puny arm but 't'would be a waste of good brirrew. Therre will be no bloodshed if ye gi' it back!"

Wingate acceded to his demand and the Scot passed the bottle around to the others although a trifle grudgingly. Barronoff and Markham accepted but Belcourt declined smiling. Kirk too would have refused but MacNair urged him.

"Coom lad! T'will do ye a worrrld of good."

Simon was too tired to argue. The liquer was warming and in a moment new strength seemed to flow into his tired limbs. The Chief Engineer drank deeply and handed the bottle again to Kirk. This time he didn't try to refuse. "This is good," Simon commented.

"Natuurrrally," the old Scot replied. "The whiskey of the hielands was made forrr discrrrriminating gentlemen."

MacNair took another gulp and returned the bottle to Kirk. Wingate watched hungrily but knew the scotchman was too canny to be caught off guard again. In a surprisingly short time the bottle was empty. MacNair studied it ruefully then tossed it to Wingate. "Herrre, ye glutton! What is left I freely gi' to ye."

Wingate caught the bottle expertly and scrutinized it preparatory to draining the last few drops. Then he let out a roar that shook the walls. "You filthy Scotch scum!! You took this from MY cabin!!!"

MacNair passed through the door an instant before the bottle crashed into a million fragments on its edge. Kirk noted with illogical amusement that Belcourt had drawn his gun. With an animal sound Wingate turned his back on the doorway and Belcourt relaxed. Simon laughed aloud. The others joined him with the exception of Markham, who seldom laughed at anything. Kirk reeled a little unsteadily and would have fallen had he not grasped the hand rail beside him. Even at that, he had some trouble getting back to his feet.

Barronoff studied Simon closely. "You'd better take it easy, boy," he warned. "You've had one too many."

"That's a matter of opinion!" Kirk asserted. "I can take care of myself!"

"You'd better sit down just the same," Barronoff insisted.

"Lishon goat face! I'm—I'm perfff—lv capable of sttttandin on my ffeet if I feel like it," Simon replied belligerently. To illustrate this, he staggered back a few steps to recover his balance. "Quit tiltin the shipppp!"

Kirk ordered. "Wh—what ya tryin to do? Knöck me downnnn?"

Wingate's bellows of laughter infuriated Simon beyond endurance. His gaze settled on Barronoff. "YOU did it!" he accused thickly. Suiting action to the word, he launched a vicious right straight for Barronoff's black beard but Barronoff's head moved and the fist went on, unresisted. Simon was thrown off balance and fell headlong into Barronoff's arms. Somehow, Kirk didn't have the strength to get back on his feet again and, after a brief struggle, he relaxed limply and closed his eyes.

"Lemme go," Simon muttered feebly.

Barronoff's body shook so hard with laughter that he could hardly hold Simon up. The shaking must have been soothing to Kirk for presently he began to snore.

Belcourt's laughter died away to a chuckle. "I think one of you better put him to bed."

Barronoff lifted Kirk up into his arms and carried him like a baby down the companionway.

CHAPTER VII

THE FIRST sensation that Simon felt on awakening was that of a deliciously cold hand stroking his forehead gently. The second was that of a horrible nausea. To this was added a pounding headache as though someone were beating on his skull with a sledge hammer. Simon opened his eyes to see the owner of the cool hand, but even the dim light of his cabin was intolerable.

A musical, feminine voice enticed him. "Are you awake?"

Simon nodded.

"Here," she said. "Sit up and take these. They'll make you feel better."

The girl helped him sit up, and

placed two pearly white capsules in his hand. Kirk popped them into his mouth and groped blindly for a glass of water. The pills went down with the ease of two baseballs. The urge to gag left Simon but he felt weaker than before. He eased himself back against the pillows, groaning.

"Oh my Gawd! I hope those pills were poison!"

Soon the headache disappeared and the will to die was gone. Simon opened his eyes again and, at a glance, he could see he was still in his own cabin. A girl with flowing blonde hair was seated beside the bunk. She was dressed in a summery white blouse and knee-length blue skirt. She was very beautiful to Simon. Then he suddenly discovered that, except for the blanket over him, he was completely without clothes.

"You didn't—" he began, reddening. "That is, I mean—"

She seemed to divine his thoughts. "No. Ivan Parronoff put you to bed. I've only been here a few minutes."

Kirk's sigh was audible. The girl smiled. Suddenly Simon frowned and looked intently at her. "I've seen you somewhere before!"

The girl's laugh tinkled in the room. "That line is as old as the hills. You'll have to think of something better than that!"

Simon blushed furiously. "Oh no! I didn't mean—that is, it's not a—"

"I know, I'm sorry," she apologized. "You saw me yesterday at the information desk in the Coming Building."

Kirk digested this for a moment then asked, "Where are we now?"

"The ship is in the hangar of Free City," she answered.

"Is that so?" Simon retorted. "And I suppose you have a dozen armed guards outside the door."

The girl bit her lip. "That remark ordered, 'until you've had breakfast!'"

wasn't very worthy of you."

Kirk felt ashamed. "I'm sorry."

Her bright smile warmed him again. "Oh that's all right. I guess you don't feel too well yet."

KIRK ADMITTED there had been times when he had felt better. "By the way," he asked, "where are the rest of the crew?"

"Oh, they left hours ago," the girl explained. "Mr. Bryant is showing them the city."

"So they deserted me, eh," Simon smiled.

"Do you think I could substitute for them for a while?" the girl inquired.

Kirk was slightly embarrassed. "Of course, I mean—ah, if—you want to."

"Do you think you could stand a bite to eat now?" she asked solicitously.

"Indeed I could!" Kirk answered.

"Good," she smiled. "There's a little restaurant just outside the field. I'll wait outside while you dress."

She arose, nodded and closed the door softly behind her. Kirk dressed rapidly and made himself as presentable as possible. In a few minutes he stepped outside and joined the girl.

"Well, do you think I'll pass, Miss—ah?"

"Belcourt," she supplied, "but just call me Ellen."

"Belcourt?" Simon echoed.

"Dr. Belcourt is my father," she answered.

"Well, well, quite a family affair, isn't it," he muttered.

She replied, "Your family is well represented too, Dr. Kirk. Your father is on the Board of Governors!"

"I'd like to see him as soon as possible. At least, I'll find out for sure if he is my father!"

"You're not going anywhere," she

"Since I don't know my way around," Simon replied, "I'm afraid I'm in your clutches."

She lifted her eyebrows. "Is it that bad?"

Kirk colored. "I didn't mean that the way it sounded."

She laughed and Simon chimed in. Just then they reached the hangar exit.

"Nice field you have here," Kirk commented. The field was small but well built. There were only two hangars, the large one from which they had emerged and a smaller one on the other side of the Administration Building. Surrounding the building was a well-kept lawn and garden.

"I'm glad you like our field," she replied. "The garden was my idea. The Governors couldn't see it at first but I convinced them."

"I like gardens too," Simon said impulsively.

"My! You're just full of surprises Dr. Kirk," she replied.

"I—I'd rather you didn't keep on calling me Dr. Kirk," Simon said. "It sounds so formal."

"What'll it be then—Simon?" she questioned.

"If you don't mind," he agreed diffidently.

"I don't at all. I think it's a nice name." She turned. "Here's the restaurant I spoke about."

As they entered, Simon noted at once the paintings on the walls.

"Almost every newcomer stops here to eat," Ellen explained, "so the walls are decorated with murals showing the progress of Free City."

Kirk noticed them with interest. "They're very well done."

"Yes. They were made by an old man who escaped from a Fabrinc prison." Her forefinger pointed to one of the first murals. "He was sentenced to prison for life for painting that face."

IT WAS A picture of a ruddy-faced man with a wiry gray mustache. He was in old-fashioned dress and wearing quaint gold-rimmed spectacles. Immediately below the portrait was painted a large representation of a club or heavy stock.

Simon's blank expression betrayed him.

"You don't know who that is, do you?" Ellen asked with a trace of bitterness.

Simon shook his head.

"He was the twenty-fifth president of the old United States, Theodore Roosevelt. That thing below him is the big stick he used on businesses that got too big and tried to run people's lives. If there were a few men like him in the world today, no corporation would put people in prisons or execute them. In those days they couldn't put you in jail for painting a picture, writing a book or saying what you thought."

"Well, someone has to keep order," Simon argued. "I don't see that it makes much difference who does it."

Ellen's eyes blazed. "It doesn't matter whether or not some stranger tells you how to live your life! Or whether you decide for yourself!"

"Well, you can't live your life without regard for the people around you."

"Did the Director General of your corporation have so much concern for the people around him when he had those three Directors executed? All they wanted to do was elect a new president!"

"According to the company law that is treason. They should have been executed and they were!"

"Oh, you make me sick!" she flared.

They finished their meal in uncomfortable silence.

Kirk finally spoke. "I didn't mean to offend you. I'm afraid I'm always

saying the wrong thing to you."

"Oh, it isn't your fault," she replied contritely. "It's just that the topic is one of my sore spots. I try very hard to control my temper but it gets the best of me sometimes."

For some reason, Simon felt greatly relieved. "I finished my breakfast as you insisted," he said, laughing.

"All right," she replied. "I'll take you to your father."

When they reached the walk in front of the restaurant, Simon stopped suddenly. "Say!" he exclaimed. "We forgot to pay for our breakfast! I have lots of credits. Are they good here?"

"Pay?" she retorted, laughing. "We don't have to pay for anything!"

"Oh, because of your father," he said.

"Of course not! We don't have any monetary system," Ellen explained.

"You mean, you—you just help yourself—to anything you want?" Kirk asked incredulously. "Everybody does?"

"Certainly. It's everybody's property."

"Well—who does the work? I mean, well— Doesn't everyone sit around and let things go?"

ELLEN TRIED to explain as patiently as a mother would to a child. "Simon, everything in this city belongs to me and to everyone else who lives here. Unlike most of the citizens, I haven't stuck to any one job. I've drifted here and there doing what needed doing at the time."

Simon turned this over in his mind carefully. "Are you given this freedom because of your position?" he asked.

"What position? I haven't any position! All the citizens are free to do as they please."

Kirk shook his head. "I don't quite understand it," he said. "You must have a very high type of individual

here. I know if I were unrestricted that I might do some work, mostly to keep from getting bored, but I certainly wouldn't work more than a day or possibly two at the most in a week's time."

"A day's work is twice as much as the average citizen does in a week," Ellen informed him.

"Only half a day a week! How do you keep the place going?"

"Oh it's really quite simple. Ninety percent of the work is done by machinery. Atomic power supplies the effort. If we had a monetary system, there would be almost eight hours of work for every able-bodied man and woman each week."

"I don't see what a monetary system has to do with it," Kirk answered.

"Well, suppose you were working in a bank or in a payroll department," Ellen explained. "You would work for a salary. You'd eat just as much and require just as much clothing as anybody else but you wouldn't help to make the clothing or grow the food."

"Yes—" Simon admitted, "but we've always found that bankers and accountants were essential."

"Furthermore," she pointed out, "unless you owned the business, someone would be making a profit on the work that you do. You won't believe me when I tell you that with all the facilities our civilization has to offer, you would only have to contribute a little over half an hour a day to be entirely self-supporting."

"It doesn't seem possible," Simon murmured.

"I'm no authority," Ellen said, "but our production coordinator can show you all the facts and figures. The only thing I know is that it works!"

Simon had to admit that the existence of the city was some proof of

her statements but, he could look into details later. At this point, they reached a tastefully landscaped park and they stopped by a bench. They sat down as though by mutual consent.

"As I see it," Simon said thoughtfully, "it's a very attractive proposition. All a person has to do is work about four hours a week or whatever your conscience tells you to and the rest of the time you can spend doing whatever you want to, like—oh, painting pictures or—writing—or learning to play the piano."

Ellen laughed. "I'm afraid not," she replied. "Such things are considered just as much of a contribution as tending a water-purifying plant or a textile machine."

"But that's a contradiction of what you were saying a moment ago," Simon protested.

"Is it?" she asked. "There's a book that's still a best seller even after a few thousand years. In it, it says that man cannot live by bread alone. There are many people that can't live without good music, good books or even an occasional glimpse of a masterful painting. That is why there is always an over-supply of labor."

SIMON WAS confused. "But don't too many people try to become artists or something?"

"Do you want to become an artist?" Ellen asked.

"Well, no. But that's different," Simon protested.

"Oh, no, it isn't!" Ellen replied. "The world is overflowing with technicians and experts but we haven't half enough authors, musicians, composers and the like."

"Maybe so," Simon commented.

The girl looked at her tiny watch set in a finger ring. "My, it's 1300 already. Your father will be chewing his nails off!"

Kirk was ashamed of himself. During this engrossing discussion, he had forgotten completely about his father.

"Come along, Simon. We've got to prove some things to you," Ellen called gayly as she led the way down the path. She began to run. "I'll race you to the street!"

Kirk raced to catch her and overtook her before they reached the street. He caught her arm and spun her around. "I may be advanced in age but I'm well preserved!" he said between gasps. "Clean living and exercise!"

They stood there, face to face, breathing rapidly and laughing. Ellen's eyes sparkled and her cheeks were flushed. Simon's heart thudded strangely for so slight an exertion. For just an instant, he felt a trifle dizzy.

"Ellen," he said in an unusually intense voice.

"Yes Simon?" she said, softly.

"Ah—, nothing." He paused. "Is my father's house near by?"

"It's not too far from here," she replied quietly, "but he won't be home now. He's waiting for us at his office. We'd better take a taxi."

Kirk was puzzled. Ellen seemed disappointed or displeased at something. "I must have said something to offend her," he thought. "I'll have to watch myself."

They found a taxi parked near by and climbed in. A few minutes later, they drew to a stop in front of a tall, imposing white building.

"This is it," Ellen remarked. She seemed to have recovered her good spirits. Simon followed her inside and into the elevator.

"This is a little different type from the ones you're used to," she commented.

Kirk noted at once the absence of

the usual gravity neutralizer.

Ellen turned her face to a small panel in the wall. "Twenty-three," she ordered.

"Twenty-three," a metallic voice replied.

"I never have gotten used to having a machine talk back to me," Ellen laughed.

The lift raced upwards with an amazing speed and came to a smooth stop before a door. It opened automatically and they stepped out into a large, well-furnished room. There was a blond young man sitting behind a desk in one corner. He looked up from his work. "Hello, Ellen!"

"Hello, Jeff!" she responded brightly, too brightly, Simon thought. "I want you to meet the famous Dr. Simon B. Kirk! Simon, this is Jeffrey Davis."

JEFF'S HAND was firm and enthusiastic. "Please to meet you, Dr. Kirk. I've heard a lot about you, mostly from Ellen."

Ellen blushed furiously and hastily changed the subject. "Is the General in?"

"He sure is!" Jeff grinned. "He's been waiting on pins and needles all morning. Go right in."

Ellen led Simon through a large, walnut doorway. Seated at the far end of the room was a man who looked like an older edition of Kirk himself, tall, bronzed and athletic. His white hair held the same suggestion of wave as did Simon's. He got to his feet as Kirk came toward the desk, slowly. The old man's voice was husky with emotion. "Simon. It's so good to see you."

Simon's eyes were misty. There was no longer any doubt. "Dad."

They embraced each other silently for a moment. Then they stood back and looked at each other intently.

"You haven't changed much, dad," Kirk said softly.

"YOU sure have, son. My, but you've filled out! I've always thought of you as being a beanpole. How much do you weigh now?"

Simon didn't get a chance to answer. A small sound made both men turn and look at Ellen. Tears were streaming down her face but she was smiling. She ineffectually tried to wipe them away with the back of her hand. Simon's father drew a large handkerchief from his pocket.

"There, there, child," the General said, soothingly. "There's nothing to cry about. You ought to be happy. Haven't you been after me for over a year to bring him here?"

Ellen hid her crimson face in the folds of the handkerchief. "Well, the city can use men like him," she stammered in a muffled voice.

"That's right," the General said, stroking her head.

"Dad," Kirk broke in, "why didn't you let me know where you were? Why did you let me think you were dead?"

"Well son, I couldn't help it. If the companies had found out about this place, they would have blown it out of existence."

Simon was hurt. "But you know I'd never betray you!"

"I know, son," the old man replied. "At least not consciously. But it's just like you to try to rescue me, to save me from myself as it were."

Simon looked at him blankly and nodded his head. "Yes, that's just what I would have tried to do."

Father and son talked for some time about the old days. There was much to say on both sides but it would take days, maybe even weeks before they could exhaust everything. Finally the General turned to Ellen. "Why don't you take this son of mine out and

show him the rest of the city?"

"But Dad!" Simon protested. "I've got so many things—"

"I know, I know, but you can ask them at dinner tonight," his father answered. "I've got work to do. Why don't you meet me here about 1700. Ellen can show you the city and save me a lot of trouble answering questions. Take my word for it, Simon, she's a regular Baedeker."

"A what?" Simon asked.

"You tell him, Ellen," the General laughed. "Now take your hero out and show him the town."

ELLEN ushered Simon out of the office with more haste than necessary, Simon thought. When they finally reached the street, he stopped her firmly. "Now look here, young lady. There's something I want to know!"

Ellen avoided his gaze. "Yes?"

"What is a Baedeker?"

"Oh," she answered with obvious relief. "It was an old official guide to large cities." She lapsed into silence and kept her eyes averted.

Simon was silent too. I've offended her again, he thought. The feminine mind had always been a puzzle to him. Maybe if I can think of something funny to say, she'll be all right.

Ellen turned suddenly. "Let's not stand in the doorway," she suggested. "Come on and I'll show you our city."

He assented and they climbed into a taxi. Ellen was herself again and Simon again was relieved. He saw all the points of interest and major attractions. He saw vegetables growing in chemical solution, visited the synthetic proteins plant and such like. An amazing number of the plants were automatic.

Mid point in their journey, Simon paused to ask why such a large city had never been discovered by the outside world.

"I should let my father explain it to you," she answered. "He's the chief of Scientific Works. When the city was first started and numbered only a few houses, your father camouflaged it with wire netting and artificial trees. By the time my father arrived, the city was almost too large to be concealed. He and some other men set to work and built a third-dimensional image projector, sort of a televisior that needs no receiver. This projects an image that covers the city entirely. All you can see from the air is a barren, volcanic island with no trees and no place to land anything but a helicopter. Only one exploring party has ever tried to land. And were they surprised to see our men coming out of a solid rock mountain!"

Simon looked up. "I don't see anything, just a little haze."

"That's it," Ellen said. "It shows no image this way, but it looks real enough on the other side."

Kirk made a mental note to ask Ellen's father about the technical details. This was in his field and he had never heard or seen anything like it.

The journey finally ended in a wing of the Archives Building. Ellen led him to a large glass case behind which was a very weathered document.

"One of our ancestors signed that," she commented. Kirk couldn't make out the writing. A transcription was fastened to the surface of the glass case. Ellen's finger pointed to a passage.

"'We hold these truths to be self evident,'" Simon read, "'that all men are created equal...'"

Ellen stood patiently while Simon read it through to the end. When he had finished, she waited for him to say something.

"Very interesting," he commented.

ELLEN SIGHED. "Simon, do you know what THEY meant and what WE mean when we say life, liberty and the pursuit of happiness?"

Simon looked embarrassed. "I think so."

"Are you sure?" Ellen replied. "Did your corporation derive its powers from the consent of the governed?"

He said nothing.

"Do you know what is meant when someone says that freedom is your RIGHT and that anyone who tries to take it away from you is wrong?"

Simon kept his eyes on the transcript. This was confusing to him.

"You don't have to take my word for it," Ellen continued. "Look over here." They walked to the next glass case. "Here's the old Constitution of the United States and the first ten amendments are to protect the people's freedoms."

Simon decided to read it through to the end. When he had finished, they moved to the next case.

"This is a copy of the Atlantic Charter. This was supposed to keep people from being enslaved anywhere in the world." Ellen stopped abruptly.

"You feel pretty strongly about this, don't you?" Simon asked.

Ellen was solemn. "I don't know if you can understand what I'm trying to say," Ellen said softly, "but we believe that while there is one slave in the world, no one can really be free. The men who wrote these documents were a lot older and a lot wiser than I but they realized it too. They didn't write all these things just to use up paper. They didn't do it either because they wanted to feel important. They believed in what they wrote. History proved that. And I believe in it too." She pointed to another smaller glass case. "This is Abraham Lin-

coln's Gettysburg Address. He led the United States into a war just to keep the spirit of the Constitution you read. He freed the slaves yet they shot him for what he believed in. Do you think he would have given up his ideals even if he had known that it was going to cost him his life? I know they don't teach you these things in the company schools. They only teach you what they want you to know. They picture Lincoln as a dreamer, Washington as a blundering fool who was just lucky and Franklin Roosevelt as a weakling."

Simon nodded. That's just what they taught.

"I wonder, Simon," Ellen said speculatively. "Do you think these men were fools? Do you think they were fools for living, working and sometimes, dying for an ideal? Do you think we're fools for wanting to live as men instead of as animals?" Her voice died away in echoes. Then she added softly, "Do you think our fathers are fools too?"

Perplexed, Simon stumbled for an answer. "No— I don't think they're fools but— I haven't thought much about it." Kirk was more profoundly stirred than he dared admit. He looked back at the musty parchment and re-read the words, 'life, liberty and the pursuit of happiness.' They were strangely inspiring. These were the things his father had left a good position for; had let his only son think he was dead for. Slowly the meaning of the words began to form in his mind and he looked at Ellen as though seeing and yet not seeing. "I—I think I know what they meant," he said simply, "but I—I never knew that—"

"I know," Ellen said quickly. "It's all new to you and you find it hard to understand just what it's all about. There are many things here that will be new and strange to you, Simon, but

if you'll take the time to read and study and find out what we're trying to accomplish, I'm sure you'll find it worth the time."

SIMON NODDED. "I'd like to do that."

"You see," Ellen continued, "that's why you were brought here. Your father didn't want to have you kidnapped, but how else would you have come? He wants you to stay here and help us. We need someone like you, someone who has a grasp of things. Your father has a lot of faith in you, Simon, and he's so sure you'll want to stay. The important thing is not to make a hasty decision. Don't say no to your father until you've had a chance to really understand all this, and then, if you still don't believe in what we're doing, a way can be made to send you back. What do you say, Simon? Will you give us a try?"

Simon laughed. "This is really ridiculous! I couldn't go back even if I wanted to. Look at the mess I left things in!"

"That could be fixed up all right. In fact, you could go back a hero if you wanted to," Ellen said sadly, "but we're hoping you won't want to."

Kirk's face became grave. "I don't know what I want to do, actually. One thing I do know is that I won't make any kind of decision until I know just what I'm doing."

Ellen smiled. "Well, that's all anyone can ask, really. I just hope you'll come to be one of us here in Free City. We—we—" Ellen's voice trailed off into silence. She looked away suddenly. "I'd like you to stay."

Unaccountably there was a lump in Simon's throat. "I'll stay," he said simply.

They looked at each other and smiled.

CHAPTER VIII

DINNER WAS over and a lull had been reached in the conversation. They were still seated around the table, General Kirk at one end and Dr. Belcourt at the other. Simon sat on his father's right. Next to him was Ellen, then MacNair and Bryant. Ranged along the other side were Wingate, Markham, Anderson and Barronoff. Most of the men were drinking some very excellent brandy. Throughout dinner, Dr. Belcourt had given everyone a comprehensive and humorous history of Free City. The General passed cigars around.

MacNair sniffed the fragrant tobacco. "Considerrrably betterrr quality than the ald skin-flint Captain smokes," he observed in a loud voice to no one in particular.

A purple tide coursed up Wingate's neck. "Nite layout you have here," he said to the General in a strained voice.

"Glad you like it," the General chuckled. "We're rather proud of it ourselves."

"My Chief Engineer," Wingate said in an undertone that could be heard on the street outside, "is a rather dishonest fellow. I'd watch the silverware if I were you."

MacNair's stage whisper to Belcourt was plainly audible to all. "If ye will, humorrr yon Captain. He's just a wee-bit daft. Ald age, ye know."

Ellen looked at Simon apprehensively.

"This goes on all the time," he said, grinning.

The General cleared his throat. "Gentlemen, and you too, my dear," nodding to Ellen, "if you don't mind, I have a few things I'd like to say."

The room became quiet.

"Mr. Bryant took you men on a group tour of our city today and you

had a chance to see the city in operation. We have gone to a great deal of trouble to bring you here. Our primary purpose was to bring my son but I assure you other gentlemen that you are not unwelcome. What we can offer you here has some disadvantages but I think the advantages far outweigh them. Now, even though I know it's short notice, we would like to know if you would like to remain here. I think you've seen enough to decide but, before you answer, I must explain the other side of the question. Our psychologists can remove your recent memories and by suggestion substitute others. The missing cargo liner which created Captain Wingate's dilemma is here. The crew has elected to remain here but we could damage the hull and place it on some remote island. With your artificially implanted memories, you would actually believe that you had found it there and could return to your city without fear of retribution. Any connection between you and my son was taken care of back in Transinc so you would have nothing to fear there. In effect, I am offering you either choice without any artificial disadvantages so that you can make your decision without the pressure of expediency." The General paused. "Are there any questions?"

WINGATE looked at Simon. "What about you, lad? What are you going to do?"

Ellen interrupted. "Oh, he's going to stay. He decided this afternoon."

Barronoff gave Simon a significant raised eyebrow. "This afternoon?" Barronoff repeated with rising inflection.

"Yes, this afternoon!" Kirk replied stiffly. "Is there anything wrong in that?"

"Now, now, don't get mad at Uncle Ivan. Remember what happened the

last time you tried that."

Laughter ran around the table and Simon glanced uncomfortably at his father. The General smiled and said, "Gentlemen, there's something I forgot to mention. The whole group needn't decide as one. We can find a satisfactory situation so that we could return one or more if you decided to split the group."

There was silence for a moment while the men sat staring at various objects in the room. No one seemed to want to be the first to speak. Finally, MacNair stood up. He nodded his head toward Wingate. "In spite of the fact that yon windbag wull say 'tis because everrrything is frree, I has decided to stay. My reason is thut I believe thut ye ha' got some-thin' herrre and a would be pleased to ha' the name of MacNairrr added to the rroster of clearrr-thinkin' men."

Wingate's outburst was deafening. "Clear-thinking men!" he roared. "Why he'd live in hell if they served free beer! Nail down the silverware, boys, MacNair is staying!!"

"SHUDDUP!" Anderson boomed, and strangely enough, Wingate did.

More quietly, Captain Wingate said, "If MacNair is going to stay, I feel it's my duty to stay too. Someone will have to protect you against his dishonest practices."

MacNair leaped to his feet. "Thrrree times ye ha' besmirrched the name of MacNairrr—and in the presence of a lady!! I ask ye to ha' the courrtesy to step ootside! We'll settle this man to man!!"

Eventually, order was restored and the two men sat glowering at each other across the table.

Barronoff arose. "For my part, I believe I shall remain, at least until I can see the outcome of this long proposed battle."

"Ye'll not ha' long to wait!" Mac-

Nair growled, glaring at the speaker.

The room became silent again. Everyone waited as though wondering who would speak next. The General was about to say something when the blond giant Anderson stood up.

"General Kirk," he said in his deep voice. "I have always lived a solitary life. About the only friends I've ever had are these shipmates of mine. I have absolutely nothing to return to but it is not because of this that I would like to stay. I've always dreamed of a place like this, a place where a man could call his life his own. The only thing I'm sorry about is that I didn't know about this city years ago. If I may, I should like to stay."

Barronoff gasped. MacNair's aplomb was shattered. "Neverrr in fifteen yearrrs ha he said so much!" he said, almost in a whisper.

Wingate was limited to an incredulous, soft, "My Gawd!"

The members of the crew stared at Anderson as though seeing him for the first time.

MARKHAM looked at the General. "I'll make it unanimous, sir," he said quietly.

The General smiled. "Thank you, gentlemen. I know you won't regret your decision. And now on behalf of the citizens of Free City let me welcome you. I hope you will be happy here. You men are the type that any community would be proud to have among its members. If ever there is anything that you don't understand about the city or anything pertaining to it, please feel free to ask me or any Board member about it. Now gentlemen, I know you will be wanting to settle yourselves in your quarters so I'll cut our discussion short. I'll see that your belongings are moved over here from the ship and

Mr. Bryant can show you your accommodations."

The men stood up and walked leisurely toward the door. Wingate linked arms with Bryant. "Why didn't you tell us about this place before?" he growled. "Holding out on your old pals like this!"

"'Tis typical of the old windbag," MacNair commented to the General. "When ye gi' him something frree, he wants ta know why ye ha' not done so yearrrs beforrrr!"

"Now listen here, MacNair!" The voices became indistinguishable as the door closed.

"Well, I guess we'd better be going, too, eh, Ellen?" Dr. Belcourt suggested.

"I suppose so," she agreed half-heartedly.

Simon and his father saw them to the door. Dr. Belcourt and the General seemed to be paying a great deal of attention to the sky line of the city while Kirk said goodnight to Ellen. "I'll see you tomorrow, I hope," he said softly.

She nodded her head. "I'll be at the laboratory. Come up if you get the chance."

For some reason, Simon took Ellen's hand and squeezed it reassuringly. He dropped it immediately and wondered why he had done it. Ellen just stared down the street. Then she turned and smiled. "Good night," she whispered.

"Good night," Simon answered.

He watched Ellen and Dr. Belcourt walk down the street and then stepped back inside. He sighed and looked at his father. "What a day!"

The General smiled. "It sure has been son. Say, I've been hearing rumors about you. It seems that you—ah—were a little under the weather yesterday. Are you going to turn play-boy at this late date?"

"Yes, I think so too," Simon said absently as he looked out a window.

"Simon!" the General laughed. "You haven't heard a word I've said."

"Why of course I have, Dad."

"Maybe, but I doubt it."

Simon gave him a puzzled look.

"Oh, come along," his father said.

"I'll show you to your room and then you can daydream to your heart's content."

They walked down the hall. After Simon closed his door, the General stood outside smiling. Then he shook his head, still smiling, and went into his own room.

CHAPTER IX

THE SUCCEEDING days were busy ones for Kirk. He found the city and everything in it fascinating. He went through all the plants, studied methods, asked questions, even stopped people on the street and talked to them. He went often to the Archives Building and read volumes of material. His favorite spot was The Scientific Laboratory, of which Dr. Belcourt was the head. He liked to watch Dr. Belcourt at work on his inventions and tried to help him as much as he could. This also gave him a chance to see Ellen since she spent much of her time with her father.

Simon decided that the laboratory was the place he wanted to work in so he did. He had much to learn but it wasn't long before he knew the principles of almost all of the new inventions that had been turned out at the Scientific Laboratory. Besides working, Simon did a lot of thinking, so much so that sometimes Simon's father accused him of daydreaming.

One evening at dinner, Kirk aired his feelings. Dr. Belcourt and Ellen were there as they often were, but Kirk felt impelled to say something.

"Dad," he said thoughtfully, "when I first came here I agreed to stay long enough to find out all about Free City and then make a decision as to whether or not to continue to stay here. Well, I've made my decision."

Ellen looked puzzled. Simon's father was disturbed.

"I'm willing to stay, but on one condition." Simon paused and looked at his father. "I think you know what it is, Dad."

The General shook his head. "I don't think so, son."

"Well, it's this. I insist that we do something about the rest of the world." No one spoke. They didn't seem to understand him. "I mean, we've got to give back the boon of liberty to the rest of the world!"

The General sighed. "That's easier said than done. You'd better explain, son. Maybe we could understand you better."

"Well, I admit I've been converted as completely as a man can be converted. I feel as though I've come to life—or—been awakened from a deep sleep. I know what it's like to talk and deal with men as friends and comrades instead of subordinates or superiors. For the first time in my life I'm doing what I want to do without worrying about anything. This is paradise but it's paradise with a string attached. You've been gone from the outside world a long time but I still remember it well. I remember what life was like, what the average day was like, and I can't forget all those people back there, living out their lives as slaves and they *don't even know it!* They don't know any better! And there's no one to teach them that they don't have to be slaves!"

Simon looked at Ellen and the light in her eyes bespoke something more than admiration. Kirk's voice rang

with a new confidence. "What I want to do is convince the people and the Board of Governors to come out of hiding and help the rest of the world. I have some ideas on how it can be done. We'll have to start in a small way, of course, but I insist it must be done! It's my firm belief that we can't maintain our liberty by hiding it or isolating it. Sooner or later the forces of oppression and tyranny will discover it and crush it. Liberty and slavery cannot exist side by side in peace!"

DR. BELCOURT smiled as he recognized the quotation from Simon Bolivar. Kirk's voice was quieter now. "If I can't convince anyone, if the Board of Governors insist upon isolation, then I ask that I be allowed to go back to the outside world. I'll have to work alone that way but if I have to, I will. You know I'll never reveal the existence of the city. All I ask is a chance, a chance to help the world, and if you won't help me, then I'll do it by myself!"

Pride and admiration made the General's voice a little unsteady as he spoke to his son. "Son, I can only say more power to you. You—you have surprised me a little. You know, son, your views are not novel. They weren't even unique when Thomas Jefferson framed the Declaration of Independence. I think these ideas are older than history, yet they have always been and still are a young man's ideas. This city has profited by the example of history. It's been proved time and time again that freedom can only be won by young men. The Board of Governors, myself included, are advanced in years but we are young enough in spirit to know that younger, fresher minds must build the future world. The people agree and they have asked for young, vigorous leadership

but they also want to retain our more experienced judgment. The present Board members have retained their seats by popular consent almost since the founding of the city. You see, son, the people who have come here were not the leaders of the outside world. The leaders of the outside world achieved a measure of satisfaction in their life just as you yourself did, Simon."

The General paused, thoughtfully. "Simon, a vacancy exists on the Board and this is to be filled by appointment, subject to the consent of the people. Some of the younger groups insist that this vacancy be filled by a man of known leadership and ability, brought in from the outside. Of all the names suggested, yours received the highest vote and so you were brought here. If you feel that you can accept this responsibility, I can offer this position to you providing the other members of the Board find you acceptable. I don't promise that we'll follow you in everything you might want to do but together we might evolve a plan for freeing the world. At least we can try. Would you like to do that?"

Simon hesitated noticeably. Ellen urged him on. "Go on, Simon! Of course you can do it!"

"Well," Simon replied, "I'll tell the Board exactly what I think should be done. My position will depend on what they decide about my plans. If they like them, fine. If they don't, then I insist on returning."

Dr. Belcourt smiled. "We'll listen to you, Simon, and if you are as convincing before the Board as you are tonight, I don't think you have a thing to worry about."

"When do we see the Board?" Simon asked.

"At 1000 tomorrow," the General

said, "but we can put it off for a few days if you'd like."

"No," Simon answered. "Tomorrow is it. It can't be too soon. I want to get started."

"Edward, suppose you bring out some of that good brandy of yours," Dr. Be'court suggested. "I'd like to drink a toast to our new Governor!"

THE GENERAL smiled. "Sometimes your ideas are excellent, Art."

Just as the General was opening a decanter of brandy, there was a knock at the door. "Come in," the General called.

The lean face of MacNair was the first to appear through the doorway. He was followed by his five comrades.

"We dinna like ta intrrude, General, but Mr. Bryant ha' preparred us quarrters nearr the airrr field and we werre anxious to move as quickly as possible. Not that we dinna apprreciate yourrr hospitality but the atmosphere arrround an airrr terminal is conducive to quiet thought."

Simon had an immediate flash of what MacNair meant by 'quiet thought.'

"Certainly, gentlemen," the General responded heartily, "but before you go, won't you have a glass of brandy?"

"Weel—aye. Thut we weel!"

"Dr. Be'court," Simon said conversationally, "have you noticed the magnetic attraction between an open bottle and Mr. MacNair? It should prove quite interesting for laboratory study."

MacNair stared at Simon over the rim of his glass. "I seem to remember an experriment of thut magnetic attrraction of which ye speak. I thought it verra instrructive, didn't ye, Dr. Kirk?"

"Be careful what you say," Dr. Be'court warned. "Dr. Kirk will be on the Board of Governors tomorrow."

Barronoff looked surprised. "Well "

he said, shrugging, "I suppose I should congratulate you although I would have been a better man for the job."

"SHUDDUP!" Anderson boomed. Since his speech some time ago he had reverted to monosyllabics.

Wingate charged across the room. Simon hastily set his glass down in preparation of what was to come. He was pummeled, beaten and shaken to within an inch of his life. Wingate's bellowed congratulations left Simon almost deaf. Finally, Wingate was forced aside by MacNair. "Dinna monopolize the hand of a grrreat man! Pretend ye ha' mannerrrs just forrr tonight!"

Wingate relinquished the hand and the Scotchman gripped it like a vise. "Kirk is a good Scotch name, me lad. Ye weel go far!"

Kirk breathed easier when the giant Anderson passed by with a laconic "Congratulations." The grip of his ham-like hands had been consciously restrained.

Barronoff quietly said, "If there's a good position open and you need a competent executive, I'm sure you won't forget your old friend."

"If they had jails, you crook," Simon replied, laughing, "I'd throw you in for life."

When Simon finally managed to escape from the spotlight, he found that Ellen had gone and unobtrusively left the room. At the front door he almost ran over Jeff Davis.

"This is the second time I've almost been run down on this doorstep," Jeff exclaimed. "The place is definitely unsafe!"

"Oh?" Simon said, trying to think of some excuse for leaving him there.

"Yes," Jeff continued, "Ellen almost ran over me a few minutes ago. I just saw her home. Is the General in?"

"Yes he is. Go on in. He's in the study."

"Thanks," Jeff said and disappeared

rather hurriedly down the hall.

SIMON WALKED briskly down the street to the Belcourt residence. He hesitated a moment, then pressed the button. A few minutes passed. He listened but Simon couldn't hear any sound within the house. He pressed the button again, longer this time. Still no answer. Simon finally walked dejected down the steps. The street seemed empty and unfriendly. Even the soft night breeze seemed cooler, less pleasant. Simon was approaching his father's house when Jeff emerged. Simon purposely paused. He was in no mood to talk to anyone.

Jeff walked quickly to a taxi parked at the curb. The door opened as he approached it and a blonde head leaned out. Jeff bent forward and kissed the girl. His words were clearly audible to Kirk. "I'm sorry I kept you waiting, dear. Shall we go dancing?"

Simon didn't hear her reply. He didn't wait. Quickly entering the house, he shut the door behind him. For a man who was supposed to be a success, he was strangely unhappy. He tried to cheer himself up.

"I haven't any strings on her," he told himself. "Besides, if she'd been home, I'd have only made a complete fool of myself. I guess I should be grateful to Jeff instead of angry."

Simon went right to bed but his mental argument went on for hours. Finally, Morpheus gathered him into his arms and quieted the turmoil.

CHAPTER X

SIMON SAT outside the massive carved doors. His head was bowed and the cigarette in his hand went unheeded except for an occasional puff. His shoulders drooped and his red-rimmed eyes showed lack of sleep. He

ran his fingers through his hair and glanced at his chronometer. It had been exactly five minutes since he had left the Council Room but it seemed like hours. His part was over; his plea had been made. Now it was all up to the Board. Behind those doors, they were considering it, deciding whether or not they would accept Simon's plans and, in so doing, decide whether or not Simon would become a member of the Board or a lone fighter.

In a short time he would know and then it would be all right. But the waiting was hard. Simon knew how futile it would be if he had to fight the corporations alone, yet, futile or not, that was what he would do. His thoughts strayed to Ellen. He had been a little shocked when he had seen her in the Council Room. She had smiled at him and had nodded encouragement but somehow it hadn't helped much. He had been more embarrassed than anything else. He wondered if she had seen him last night. "Oh well," he sighed, "Jeff's a good guy." But he'd said that a thousand times and it didn't do any good.

Kirk lifted his eyes at the sound of approaching footsteps. It was Jeffrey Davis. "Hello, Simon. Haven't they decided yet?"

Simon shook his head. Even though he didn't want to like Jeff, he did.

"Buck up, Simon," Jeff said, sliding into a seat beside him, "even if they don't like your ideas, I'm sure they'll give you the chair on the Board. After all, that's what they brought you here for."

"That's the trouble," Kirk replied. "The ideas go with me. If they don't like them, then I'm going back."

"But—why? Don't you like it here?" Jeff asked, amazed.

"That isn't the idea. If the Board doesn't see fit to abandon passivity,

then I'm going to do what I can alone."

Jeff shook his head. "You'll have a tough fight on your hands. But maybe—." They lapsed into silence.

Kirk sighed. "I suppose, while you're here, I should congratulate you," he said.

"Ah—thank you very much," Jeff replied, "but what for?"

"I—was, ah—standing near your taxi—last night," Simon said, embarrassed, "when—you left my father's house."

"What are you driving at?" Jeff exclaimed.

"I—you had a passenger," Simon stammered.

"Oh! You approve of my taste." Jeff smiled. "I must be sure and tell her about the compliment! She's the sweetest little woman in all the world and I don't see how I could get along without her."

"Ah—yes," Simon said, painfully.

"You'll have to come over sometime," Jeff continued. "We have a little Jeff now. Say, why don't you bring Ellen over some night for dinner?"

"Ellen?" Simon repeated, stunned. "ah—little Jeff?"

"What's the matter with you?" Jeff asked. "Are you sure you're feeling all right?"

KIRK JUST sat staring at Jeff. He tried to say something but all that came out was an inarticulate gurgle. Jeff looked at him with a frown of puzzlement.

"Listen, Simon," Jeff said, firmly, "there's something wrong with you and if you don't tell me right now, I'm going to call a doctor! Now out with it!"

Simon moistened his lips. "Ellen,— Ellen is—you— I mean—you—"

"What about Ellen?" Jeff inquired.

"You don't have to worry about her! You've had her hooked for years!"

"What!" Simon gasped.

Jeff shook his head. "You're mixed up about something and how can I help you if you won't tell me what it is?" Jeff looked at Simon closely and then a grin spread over his face. He laughed outright. "I know what it is! You think it was Ellen that was in the taxi! My goodness, man! No wonder you look awful!"

"It wasn't Ellen?" Kirk asked, slowly.

"Of course not!" Jeff answered. "Ruth and Ellen look a good deal alike but you could never get the two confused. What ever made you think it was Ellen?"

Simon shrugged his shoulders.

"Well, you don't have to worry about THAT girl! Do you know she's got a scrap book full of clippings and pictures of you? It's so heavy I can hardly lift it."

"Scrapbook?" Kirk asked, blankly.

"Sure!" Jeff replied blandly. "You've had your picture in lots of newspapers and magazines. Our agents bring back bundles of literature whenever they return and Ellen's always one of the first to go through them. For goodness' sake, don't tell her I told you! She'd never forgive me!"

"Oh," was all that Simon could say.

Jeff smiled and laid a reassuring hand on Kirk's shoulder. Just then, the doors opened and the Board's secretary beckoned to Simon. "Dr. Kirk, we're ready," he said softly.

The palms of Simon's hands were wet as he stood before the long table. His father, a little to the right of the chairman, smiled encouragingly but the faces of the other Board members remained non-committal.

The chairman arose and read from a small slip of paper. "After due consideration of your proposals, Dr. Kirk, and after hearing the testimony of the witnesses, the Board has reached a decision. First, we accept your proposals to actively promote and establish freedom and equality throughout the world. It is understood that the details for carrying out these proposals are subject to a majority action of the Board. Second, we accept your application for the position as twelfth member on the Board of Governors of Free City." The chairman laid aside the paper and stretched his hand across the table to Simon. "May I congratulate you and say I am glad that you are one of us."

Kirk shook the extended hand. He didn't trust himself to speak. The chairman straightened and rapped the table sharply with his gavel. "Meeting is adjourned."

THE BOARD members milled around Kirk. He kept looking over their heads or between them, frantically, to find Ellen. When he had the opportunity, Simon's father drew him aside. "Well, son, you made it! I'm very proud of you and Ellen too!"

"Ellen?"

"She was one of the witnesses," the General explained, "and I wish you could have heard her! Before she got through she had the Board convinced right down to the last man that you were the man for the job. She was magnificent! If I were you, son, I wouldn't let a booster like that get away from me!"

Kirk's smile slowly broadened. "Maybe you're right, dad. By the way, what do you have to do to get married around here?"

The General lowered his voice con-

fidentially. "Well, if you're in a hurry, just see one of the Board members and he can fill out a certificate for you. Then, if you happen to be passing a church, just walk inside and you'll probably get fixed up all right."

Simon rubbed his chin thoughtfully.

"The *new* Board member," the General continued, "probably won't have any forms in his office yet but I understand there is an old ex-General on the twenty-third floor who has a desk just bulging with them."

Simon smiled at his father. "I haven't asked her yet."

"Well what are you waiting for?" the General asked. "Wait a minute! I've got an idea."

Then General ushered his son out into the hall. "Now you wait here, son. Give me five minutes and then take the stairs up to the Laboratory. I'll see that no one is there but Ellen. Then you're on your own!" The General stepped into the elevator and the doors closed.

Simon paced up and down the hall. He rehearsed what he would say to Ellen and finally he had it just right. He looked at his chronometer and walked slowly up the stairs. He reached the upper hallway and walked toward the door marked: BOARD OF GOVERNORS, SCIENTIFIC LABORATORY. Simon was on the point of knocking when he remembered that no one would be there but Ellen. He decided not to knock and opened the door carefully and closed it with hardly a sound.

The office was deserted so he walked into the main laboratory. Ellen was studying something on a workbench. Simon had an impulse to leave. He couldn't do it. What he had planned on saying was all wrong. Besides, he couldn't remember a word

of it. Panic seized him. He turned to go and bumped into a table. A metal flask fell to the floor with a crash.

Ellen wheeled around. "Oh, Simon," she said. "I didn't hear you come in."

"Hello, Ellen," he said stupidly. "I—that is—you."

"I suppose your father told you about my speech," she smiled. "Well, it was only the truth, Simon, and you would have made it anyway. I just said what anyone would have who knows you."

Kirk's knees felt watery as he walked over toward her. Nothing he could think of to say seemed rational.

ELLEN SLID away from the workbench and stood up. "Well," she said brightly, "how does it feel to be a Governor?"

"Ellen," Simon said softly, "Ellen"

She looked at him, startled. Her lip began to tremble and her eyes widened. "Yes, Simon?"

Simon couldn't stand her looking at him like that. "Ah nuts," he said to himself and took her in his arms. He held her close. "I love you, Ellen," he whispered in her ear. "Will you marry me?"

Her hair brushed his cheek as she nodded. As he held her, little tears began to trickle down his neck. "Oh, Simon," she whispered. "I've waited so long. I was afraid you'd never ask me."

"I was so afraid you'd refuse," he murmured.

Later, in the General's office, Simon and Ellen stood before the General's desk. The General had been busy and the place was filled with Simon's friends. Everyone was in high spirits except Wingate, who was strangely solemn and silent. As soon as the General affixed his signature to the certificate, Simon and Ellen were

hustled out of the room. Everyone insisted on going with them to the church, everyone, that is, except Captain Wingate. As the elevator carried them toward the ground level, the Captain blew his nose loudly. Ellen looked at him sharply. Tears were streaming down his ruddy cheeks.

"Why, Captain! What's the matter?" Ellen asked, sympathetically.

"I can't help it," Wingate blubbered. "Weddings always make me cry!"

"Ha!" MacNair grunted.

From the look on MacNair's face, Simon could see that Wingate would not be allowed to forget this for years to come. Then Simon looked back at Ellen and all at once there wasn't anyone within a thousand miles of them. They didn't even see the doors open at ground level.

CHAPTER XI

SIMON awakened to an insistent buzzing sound. It was the urgent signal on the visor beside his bed. His hand groped forward and snapped the set on.

A young man's face appeared on the plate. "This is the Monitoring Station, Dr. Kirk. We've just picked up a message that may be important. It's ultra-high frequency audio-visual but it's scrambled." The young man paused.

"Couldn't it have waited until morning?" Simon asked, wearily.

"I don't know," the young man answered. "Our coordinates show that it originated on a small island not more than a hundred miles from here. We think the message was beamed to Power City although, at that distance, we can't be sure. We've got both halves recorded and we're trying to unscramble them."

Kirk scratched his chin. "All right. Keep working on it. I'm leaving in

a few minutes so forward any information to the Government Building."

"Right!" The young man disappeared.

Simon dressed quietly, trying not to awaken Ellen. Just as he was ready to leave the room, however, she stirred. "What's the matter, darling?" she asked, half awake.

"Nothing dear. Just some business I have to attend to. I'll be back in a little while. Go back to sleep like a good girl."

Obediently, Ellen turned over and drew the blankets up under her chin. Simon stood over her for a moment, smiling and then bent over and kissed her forehead. Softly, he left the room.

Fifteen minutes later, Simon walked into the Government Building. As always, the interior was brightly lighted and it gave the impression that the building was teeming with life. Although this was highly improbable at that time of the morning, it was none the less comforting. Simon was now accustomed to the personalized atmosphere of the various buildings, so different from the lifeless monsters of Transinc which became inert and tomblike when deserted.

Simon stepped into the elevator and turned to the metal grill set on the wall. "Forty-seven, please," Kirk requested.

"Forty-seven," the metallic voice repeated. The voice, although originating from no human source, enhanced the feeling of companionship that the building engendered.

A moment later, Simon stepped out on the forty-seventh floor and walked briskly to his office. Inside, he settled himself at his desk and, touching a stud, activated his visor. "Relay all calls for Dr. Kirk to his office," he ordered.

"Understood," the visor answered tonelessly.

Snapping the visor off, Simon

leaned back in his chair and stared at the ceiling, meditating. When he had first arrived in Free City, he had thought the vocal command relay systems in use were both wasteful and cumbersome. Now he had come to realize how much the little things enriched a man's life. He tried to count the different devices the city was using just to make life interesting and entertaining.

THE VISOR chimed melodiously and Kirk straightened in his chair. He snapped it on and a middle-aged man appeared on the screen. "Dr. Kirk, we have an urgent message."

Simon nodded.

"T-338 under Captain Wingate. Emergency landing in ten minutes. Captain requests immediate audience with Board of Governors."

Kirk frowned. "All right," he assented. "Have the crew come to the Government Building. I'll try to get everyone together."

Half an hour later, the Board of Governors was assembled in the Council Room. Wingate, MacNair, Bryant, Anderson, Barronoff and Markham sat in a row, ill at ease, while Kirk gave a rapid summary of the events which led to his calling the meeting. Then, turning to Wingate, he said, "I guess it's up to you now, Captain."

"Thank you, thank you," Wingate rumbled. "Well, it all began like this. I proposed to my friends yesterday morning that we do a little scouting around, purely for the purpose of improving our knowledge of this area, you understand. Well, we discussed this with Mr. Bryant at the airfield automat. 'Bryant, my boy,' I said, 'I feel it would be to the advantage of the city if we—'"

MacNair leaped to his feet. "I'd much preferr ye dinna wearr oot

yourrr vocal cords! The matterrr is quite simple. Last night, we took off and went on a wee jaunt to some of the neighborrring islands."

"All right, MacNair," Wingate growled. "I'll tell this!"

"These imporrtrant gentlemen have morrrr intrrrasting things ta do than listen ta ye, ya brayin jack-ass! I'm merrrely trrryin to simplify theiirrr task!"

"Now listen here, you old goat!" Wingate exploded. "I'm the Captain and I'll do the telling! And in my own way!"

"Overrr my morrrtal remains will ye turn THIS into the story of the heroism of the grreat Wingate!"

"At least, I didn't give up without a fight!" Wingate snapped.

"Cowarrd, am I!" MacNair snarled. "Coom outside!! We'll settle this man to man!"

The chairman of the Board rapped his gavel sharply and glared the two men into silence.

"Maybe I'd better tell what happened," Bryant said, quietly.

"Aye," MacNair replied. "'Twould be infinitely betterrr than the ef-forrrts of yon windbag!"

Once again the chairman pounded the gavel violently. The room became deathly still.

"THE SITUATION is roughly this," Bryant began. "We landed on the island, designated as C-14 on our maps and I guided our party along the beach, intending to show them the cave the city is planning to use for ship storage. Just as we reached the cave, we were assaulted by a group of armed men. They took us into the cave and held us captive for several hours. There was a ship in there but none of us had seen that particular design before. It was painted dull black and

had no insignia or numbers on it. The men who captured us seemed to be waiting for someone and, after about three hours, a man who we think is their leader came in. He questioned Captain Wingate but the Captain refused to answer any questions. The man left us then and went into the ship. I saw the ship's beam antenna rotate a little so I supposed he was communicating with someone. He came out in a few minutes and ordered us released. We made our way back to the ship, made sure they weren't following us and returned as quickly as possible."

Simon jumped to his feet. "By George, that must be the message the Monitoring Station recorded!"

The other Board members stared at him curiously. In brief sentences, Kirk explained about the message and his reason for being at the building at such an hour.

A hurried conversation with the Monitoring Station disclosed that they were doing their best but it would take another half hour. The Board sat back in their chairs to wait, asking questions of the crew.

Finally, the large screen in the conference room lighted and a line appeared on its surface, dividing the screen into two halves. A dark, beetle-browed man with receding forehead came into view on the right half. "9 calling W.B.," the man said. He repeated this several times.

Then a portly gray-haired man appeared on the left side of the screen. "Go ahead, 9," he ordered.

"We picked up some men who were prowling around the beach," the man known as 9 began. "They came in a Transinc explorer, Number T-338. My men held them here for three hours until I arrived. One of them is named Wingate and I think he is the Captain. I believe I've seen him

at Transinc. In fact, I'm certain."

W. B. LOOKED downward. "Just a minute," he said. He disappeared and returned almost immediately. "A report went out some time ago that he had crashed while commanding that ship. I think it must be Wingate."

"What shall we do with them?" 9 asked.

"Under the circumstances, I think they must be spies but we can't take the chance. If they are spies, it means Transinc is getting wise to us or they might be looking for a place to set up a military base of their own. Ah—this is what you'd better do. Tell them you're sorry you detained them and let them go. Then, tomorrow night, and each night after that, cruise over the adjoining islands. Check them for infrared and all kinds of radiations but, most particularly, take a picture of each one. Flash the pictures to me and I'll check them against the surveys. If they've got a camouflaged base, it will show up. By the way, when they leave, try to get a general idea in what direction they go. It might help."

"What do we do if we find something suspicious?" 9 asked.

"Just drop a bomb," W. B. smiled. "Mercury disintegration type will do."

"O. K. Chief," 9 said, "but what about your end? Won't there be some questions asked?"

"I doubt it," W. B. answered. "If Transinc has established a military outpost, they wouldn't dare do anything. If, on the other hand, Wingate is on his own and Transinc doesn't know about him, no one will ever miss him. Don't contact me again until you have something definite. It's too risky."

"Right, Chief!"

Both screens went blank. The men in the room stirred uncomfortably. The visor lighted again and the face of the Monitoring Station Superintendent appeared. "Did you get it all, gentlemen?" he asked.

"Yes, we did, thanks," Simon answered. "If you pick up anything else give us a flash."

The Chief Monitor nodded and disappeared.

General Kirk arose and addressed the chair. "Gentlemen, this is IT. This is what we've been expecting for years. We have some very grave decisions to make but I think we need a little time to collect our thoughts. I suggest we adjourn until 600. That will give us a chance to do some thinking and have breakfast."

The chairman glanced at the other Board members questioningly. With slight nods, they indicated their approval. The chairman rapped the gavel and adjourned the session. The members filed slowly out of the room. The usual conversation was absent.

The General and Simon walked together but they didn't speak until they reached the elevator.

"Have you got any ideas son?" the General asked.

"Not a one, dad," Kirk replied, "at least, nothing definite."

They rode down in the elevator, lost in their own thoughts.

"Would you like to have breakfast with us?" Simon asked his father when they reached ground level.

"Not this morning, Simon," the General answered. "I've got several things I must do."

"All right, dad," Simon sighed. "I'll meet you in the Council Room, then."

SIMON walked rather rapidly and reached his home in a very few minutes. As he opened the door, a

savory mixture of breakfast smells greeted him. Ellen met him half way to the kitchen. She kissed him and ran her hand across his furrowed brow. "Poor Simon," she murmured.

"Not poor Simon," he corrected. "Poor Free City."

"What's happened?" she asked simply.

Taking her arm, Kirk guided her to the table. Between mouthfuls of food, he explained the developments.

"Simon, what are we going to do?" she asked.

"I don't know, dear, but we've got to do something. It's just a question of time now before we're discovered. Why don't you come along with me to the meeting? We can use all the brains we've got."

"I don't want to interfere," Ellen objected.

"Don't worry, darling," Kirk smiled. "There isn't anything you can do to make things worse."

"Maybe so," she answered.

"You'll come then?" he asked.

She smilingly nodded. "To give you moral support."

Throughout the rest of the meal and until they left the house, Ellen tried very hard to dispel Simon's gloom. She had partly succeeded by the time they reached the Government Building. The General was waiting for them by the elevator. "How are you feeling son?" he asked.

"Just the way you do," Simon answered. "Maybe a little more so."

"Coming up with us?" the General asked Ellen.

"Yes," Simon replied. "I asked her to sit in."

"Good idea," the General sighed. "She usually has something worth hearing."

It was a trifle past 600 when the chairman rapped for silence. "Gentlemen, I realize there's no need to re-

peat to you what is facing us. I propose we turn our meeting into an open forum."

Everyone nodded agreement.

"It seems to me," Dr. Belcourt said, "that we might settle this problem point by point."

"What do you mean, Doctor?" the chairman asked.

"I mean," Dr. Belcourt explained, "we all know that although our screen over the city prevents our detection from the standpoint of radiations, that same screen changes the island's typography. It's a veritable certainty that if we do nothing, we will be found and almost as certainly destroyed. We have detection equipment whereby we are warned of the approach of any type of craft. We have devices which would enable us to destroy or capture any ship that might come here. The question is, then, should we capture this ship, destroy it and the crew, or allow it to return to its base?"

"I would say capture it," the General answered.

"That would only be prolonging the inevitable," Dr. Belcourt answered.

"True," the General agreed, "but after all that's what we need most of all, more time."

"**H**OW MUCH time would it give us?" the chairman asked.

"About a week, conservatively, and maybe as long as a month," Dr. Belcourt answered.

The chairman turned to the other board members: "Are there any other comments on this?" He waited and then called for a vote. Unanimously, the Board agreed to the capture of the ship when it arrived. The details were given to General Kirk, who left the room shortly in company with Dr. Belcourt.

The discussion continued until 1000

revolving around the same points and extending itself not at all. The chairman finally summed it all up. "I'm afraid we're just going in circles, gentlemen. Shall we adjourn until this afternoon? We can all keep in touch with General Kirk's office so that a meeting can be called at any time."

"I think it's a good idea," one of the members sighed, stretching in his chair. "I'm going home and talk it over with my son. He's always thought he could handle my job better than I do. Maybe he's right."

A low chuckle ran around the room. Slowly, one by one, the members left, Simon and Ellen being the last. As they went out, she clutched his arm tightly. "Oh, Simon, it all seems so helpless!" Ellen said, biting her lip. She buried her face in his lapel. A moment later she straightened. "I'm sorry, dear," she apologized. "I don't want to add to your worries."

Simon smiled encouragingly and guided her out of the building. When they reached the street, Ellen asked, "What would you like to do, dear?"

Kirk hesitated. "I think I'd like to take a trip. Let's go to the same places you took me to on my first day here."

This cheered Ellen. "All right, darling," she agreed.

They stopped and had lunch at the small automat near the airfield. From there, they went from place to place, almost methodically. Simon stopped occasionally to contact the General's office. When they reached the Archives Building, Ellen stopped suddenly. She looked at Simon and burst into tears. "Simon, Simon," she sobbed. "What's the use of going on. It isn't the same. It's all spoiled. This building doesn't mean anything anymore. Those things inside are just words. They don't mean anything, either. It's all just a dream, a dream

that didn't quite come true."

Simon held her and stroked her hair without answering.

Finally Ellen turned her face to his again. Simon kissed her, holding her tightly. Then he looked into her eyes. "It's our dream too," he whispered, "and it's got to come true! I'll make it come true!" Kirk's face was grim and determined. Ellen had never seen that look before. It was that same expression of implacable determination that had become so familiar to the members of the Arctic expedition. Somehow, Ellen found herself believing this man and wondering to herself if she had ever really known him. Then, Simon's look softened and he kissed her again. "Come on, sweetheart," he smiled. "Let's go inside."

Ellen followed him, quite happy, quite content, confident that somehow, some way, Simon would find a way.

Simon was not inwardly confident. For the first time in his life, he was experiencing the torturing doubts that are the inevitable companion of responsibility. As he walked through the rooms of the Archives Building, he thought of the people who depended on him. "What am I going to do?" he asked himself. "I've got to think of something! And fast!"

CHAPTER XII

SIMON AND Ellen reached the document room, the same one in which Simon had promised not to leave Free City until he had a chance to learn all about it. Neither of them spoke. They just browsed. Suddenly Kirk glanced at his chronometer. "It's getting about that time again," he mumbled.

"Why don't you stay here?" Ellen suggested. "I can call your father for you."

"All right, dear," Simon answered.

After Ellen had gone, Simon just stood, seeing nothing. His mind wandered over the same old ground, around and around in the endless circle it had traversed so often before. Then Simon realized he was staring at a picture of a rather kindly faced man.

"I wonder what you would say if you were here now." The expression on Benjamin Franklin's face remained unchanged and impassive. For a moment, Simon had the illogical impression that the real Franklin was looking at him across the ages through that picture. He glanced downward to the quotations beneath the picture, reading half aloud.

"A penny saved is a penny earned.' 'A word to the wise is enough.'" Simon drew a deep breath and read on. "'The Englishman's face had a somewhat supercilious smile as he said, 'Well, Dr. Franklin, now that General Howe has taken Philadelphia, what do you have to say?'"

"Franklin's lips twitched slightly. 'I beg your pardon, sir—PHILADELPHIA HAS TAKEN HOWE,' the old philosopher answered."

Simon's eyes twinkled. "Unbeatable old codger," he muttered. "Philadelphia has taken—" Simon's jaw dropped. His brow furrowed. For three full minutes he hardly breathed. He didn't notice Ellen when she returned until she touched his arm lightly and said, "What's the matter dear?"

He turned. "Ellen! I think I've got it!"

"Got what?" she asked.

"Philadelphia! I've got it!"

"You what?" Ellen exclaimed.

"Come on!" Simon exploded. "We've got to get out of here!"

Simon rushed her out of the building before Ellen could press him for details. He was grinning when they

reached the street, grinning broadly.

"A child could have thought of it!" Simon chuckled, as he started a taxi.

"Simon, what is it!" Ellen insisted.

"It's perfectly clear," Simon explained. "You see, Philadelphia has taken Howe! No—no! I mean—oh, I don't know what I mean. Quiet now and let me think!"

Kirk's brow became corrugated with lines of concentration which remained until they reached the elevator in the Government Building. In the elevator Simon nodded and muttered, "Yes, it'll work. I know it'll work!"

ELLEN HAD given up trying to get anything out of him. It took twenty minutes to assemble the Board of Governors. It seemed like twenty years to Ellen. Simon wouldn't even look at her. He sat in his Board chair, scribbling some notes on a pad, chewing on the end of his pencil occasionally. Finally all of the members settled themselves and the chairman rapped his gavel for silence. "Dr. Kirk, the floor is yours," he said.

Simon stood up slowly, wiping his palms on his trousers. He stared at the notes he had made and then looked up. "I—I don't quite—know how to begin this. Maybe I should say that I think I've found a method to save Free City and accomplish our objective of re-establishing the precepts of individual liberty throughout the world."

The Board members shifted a little in their chairs. This didn't sound like it was going to be very practical.

"First," Simon continued, "I'm going to ask our production coordinator, Mr. Mooring, whether or not a workable monetary system could be set up in Free City?"

Mooring looked at Simon and shook his head.

"Why?" Simon asked.

"The oversupply of merchandise, food and all other things would render an arbitrary medium of exchange worthless. Under efficient production, such as we have, no unit of exchange could be maintained at a reasonable value. It would be so nearly without value that it could attain no psychological value. People would regard it as being worth practically nothing. Stabilizing the value at a high figure would cause production increases that would exceed the demand. Then you would have to devalue the trade unit or reduce the people on the island to relative poverty. It's a known fact that the unit of exchange cannot be materially greater in value than the commodity it buys. It could only be made to work here by shackling our production or destroying our too-efficient machinery."

Simon nodded, smiling. "I would like you gentlemen to keep this fact in mind." He paused. "My second point is this. A long time ago, there was a country called Cathay, later named China. This country was overrun by conquerors more times than I can remember yet, each time, the conquerors disappeared and China remained."

"Are you suggesting that we absorb the rest of the world?" one of the members asked incredulously.

"Not exactly," Simon replied. "I AM suggesting that we allow the rest of the world the opportunity of being absorbed by our advanced knowledge. In the case of China, gentlemen, the system was simple and automatic. China had a language, an alphabet and scientific knowledge, particularly in medicine, mathematics and the other foundations that make up a civilization. The conquerors, on the other hand, were not as far advanced, so they readily accepted the advantages of Chinese culture and knowledge and,

in so doing, they became, to all intents and purposes, Chinese. Even racial differences break down before the leveling influences of a superior culture."

KIRK GLANCED again at his notes. "Many people," he continued, "have the mistaken idea that China absorbed other nations by her sheer size but that is an error. The size is a result of the absorption, not the cause. Cathay was a very small country at her beginning. The Ancients used to say, 'as a man thinks, so is he,' and this was exactly the case with China. When people began to read, write and talk like Chinese, they became Chinese."

Kirk was staring straight at Ellen as he talked. It was if he didn't dare look into the faces of his fellow Board members for fear he would lose his courage.

"It came to me suddenly," he went on, "that we in Free City are in exactly the same position as was Cathay. Rather I should say we are in a better position since we know that the world's economic system MUST break down under the impact of our technology. Isn't that right, Mr. Mooring?"

"If you could get the world to use our technology," Mooring answered.

Simon smiled. "I think that angle is already taken care of. The five companies operate on the principle of profits and the more efficient they become, the greater the profit. They couldn't resist our new methods. They would want them so greedily that we could use them to bargain for our own security."

"Just how do you mean?" the chairman interrupted.

"I mean, we could offer our complete new technology to the companies and, in return, we would ask to be re-instated or assigned to one of the

companies with all rights and privileges of the other employees."

"I don't see that it's much of a victory," one of the Board members commented.

"That's the subtle part," Simon answered. "Let's consider the outside world. Every man and most of the women spend between five to seven hours, six days a week, working and obtaining little more than the necessities of life in return. At this time, I think we have not quite seven hundred fifty thousand people in Free City. From this, you can see that if we went back, every person in the world would have an opportunity to hear from one of us a first-hand description of what our life was like on this island. In effect, our people would be ambassadors from paradise. Dissatisfaction would spring up where now there is only complacency. At one end of the scale, we have the breakdown of the companies' economic system and, at the other end, we show the individuals what life COULD be like. It may be an unjustified assertion but I think that within two years of the time we went back, the world would be completely changed."

Simon fell silent and for the first time looked at the other members of the Board, uncertain.

Dr. Gaines, the psychologist of the Board, spoke. "Mr. Mooring has already rendered the opinion that, economically, Dr. Kirk's plan is sound. From a psychological standpoint, it is more than that. It's infallible. I could almost guarantee that the companies would rush to get our new methods. As Dr. Kirk put it, they just couldn't resist. On the other end, the plan would work just as inevitably, yet there is one point which has not been touched upon. When the company system deteriorated, someone would have to re-organize, get things

going again, or chaos would result. This, of course, would be our job. We'd have our hands full at first but if we would work hard, let people know what had to be done and then teach them how to do it, it wouldn't be long before things would be running smoothly. The whole world would be just like Free City is today. What I've said all boils down to the fact that I am sure that Dr. Kirk's plan will work and I'd like to add that the greatest day of my life was the day on which I cast my vote for the inclusion of Dr. Kirk on the Board."

THE SILENCE deepened. No one moved. It was as if no one were breathing. A plan, a momentous plan was before them and they knew it was the only hope.

The chairman arose. "Dr. Kirk, as you know, we haven't the authority to say yes or no to your plan. The only thing we can do is have you offer it to the citizens and let them decide. We can, however, offer you our complete and wholehearted support. First, I wish to offer you my post as chairman of the Board as a token of my faith in you. I shall support you all the way and I know the other members will also."

Simon moved dazedly to the chairman's rostrum and looked self-consciously at the other members.

Simon's father stood up, smiling. "Mr. Chairman," he said slowly, "I move that the communication channels be cleared so that you may speak to the citizens of Free City and call for a popular vote."

Another member jumped to his feet. "I second that motion!"

"It's — be — en — moved — and — seconded —"

A chorus of ayes cut off the balance of Kirk's remarks. Whatever else

Simon was going to say was lost as Ellen ran forward and threw her arms around him. "Oh I'm so glad I married the right man!" she exclaimed, just before she kissed him.

CHAPTER XIII

"GOLLY!" Billy breathed. "What a guy!"

"Yeah, he was," Gramps agreed. "And he wasn't far wrong in that estimate of two years either. The companies let them come back all right and, for about three months, everything went along just as before. Then, little by little, things began to change. The first thing was the working day. Those machines and ideas that the folks in Free City brought with them started piling up little surpluses of this, that, and the other thing in warehouses. Finally, a year and a half after the Free men came back, the work day was only two hours long. But upstairs, in the management sections, the work was getting worse and worse. One little thing after another would go haywire. The labor credit value was going up and down like a rubber ball. Production methods were changing. Commodities were changed and redesigned. For instance, clothes. At one time, Fabrinc made them so they would last a while. Toward the end, they started making them so they could be worn one day and thrown away."

"But why?" Billy asked. "Why make clothes that cheap?"

"To keep production up, Billy," Gramps answered. "They tried their darndest to keep things going. Course there wasn't much trouble in the average worker's life. The prices were fluctuating like mad but they caught on to that pretty quick. If a cereal cost ten labor credits one day and one credit the next, they'd buy them up when they cost one credit and wait

until they got cheap again before buying any more."

"Must have been awful, Gramps," Billy said.

"Oh, it wasn't too bad," Gramps smiled. "Since people were only working a couple of hours a day, they had time on their hands. They kept hearing from the people from Free City now beautiful the island was, so one day a bunch of men got together and tried planting some flower seeds. They went way out to the edge of Cominc I and marked off a little square at the desert land and each day they'd come out and tend it, water it and care for it. Pretty soon the flowers began to grow. The years had dissipated the deadly radiations in the soil and, after a while, planting flowers became a regular pastime. People began to rediscover the thrill of seeing something growing that they had planted themselves."

"By this time, though, the Directors and bosses were growing gray-headed, trying to keep their companies in one piece, but the break had to come sometime. One day, the Director of Cominc came out of his office after having worked all night and he saw people walking around, going places and enjoying themselves and looking as though they didn't have a care in the world. It was then that this man realized that they actually didn't have a care in the world. You know what this fellow did, Billy? He turned around, went back upstairs and told the other members of the Board of Directors that he was through, that he had had enough to last him the rest of his life so he was retiring. The news traveled like wildfire. Pretty soon, there was a whole wave of resignations when the executives realized they were killing themselves trying to save their companies when in reality the companies were already dead.

"THERE WAS a little space in there when it looked like everything was going to pieces but you should have seen the people from Free City pitch in. They worked hard but they were working for something they had dreamed about. Now that the companies were gone, they had a free hand and did they use it! They talked to people on the 'visor, got in and ran the factories, stopped people on the streets and talked them into helping them and finally, after they'd gotten the idea across with everybody, they arranged for the first election. After the election, things really ran smoothly. Things got more efficient. And as far as I know, nobody ever did outlaw the labor credit system. They just stopped using it, just like Kirk expected.

"Simon Kirk went back to Free City eventually. He and some friends installed machinery and got it in working order again. Then they offered it to the world as the new center of government. It took a little time but finally a workable setup for world coordination was made and it was a pretty big date when they took over Free City. Before you were born, Billy, they changed the name to Kirkland. Simon Kirk objected to it at first, but it didn't do him much good. I guess people are still people, Billy. When they make up their minds to something, they're going to have it and they won't take no for an answer."

Gramps heaved a sigh and stretched in his chair.

"How come, Gramps, you never told me about this before?" Billy asked.

"Well, I guess maybe I'm not too proud of what I've done. My contribution to the world was a pretty negative one." Gramps looked intently at one of his hands. "You see, Billy, when Simon Kirk came back from Free City, I was the Director General

of Cominc. My only claim to fame is I was the first man in an executive position to stop beating my head against a stone wall."

"Gee, Gramps!" Billy exclaimed. "You mean YOU were one of the last tycoons?"

"Yup, I sure was." The old man lapsed into silence.

"There's something I don't understand, Gramps," Billy said, slowly.

"Oh?" Gramps looked up. "What's that?"

"Well," Billy said, thoughtfully, "how come nobody ever tried living this way before they set up Free City."

Gramps chuckled. "That's the funny thing, Billy," he answered. "This is probably the oldest kind of government there is. Every time a man gets married he sets up a little government based on the same ideas. A long time ago, so far back in history that nobody knows much about it, little groups of people lived this way. Along about the time I was born, though, the idea of brotherhood and fraternity among people interfered with the plans of us tycoons so we thought up a way to get around it. We gave this kind of government a name and made everybody afraid of that name with propaganda. We didn't tell people why they should be afraid of it, we just told them that they should be afraid. We used that ugly word to batter down everyone and everything that stood for liberty, equality and fraternity. We used that word to such good advantage that we almost wrecked the world."

"What word, Gramps?" Billy asked. "You mean Fraternal Government?"

Gramps chuckled again. "Nope, that wasn't it, Billy. In those days, we called it Communism."

THE END



"It's jutht a low-down, dirty trick," the gopher said.

LUNA ON THE LEFT

by Charles Creighton

When the gopher started talking, Larry Johns thought he had something. But what is so valuable about a gopher that lisps?

THERE WAS the sound of chewing, broken only by Mildred Johns bringing more food to the table.

"Ought to make more of these," Harry Johns spoke through a mouthful of cornmeal biscuit. "Kids like 'em too."

"Gee, mom! You bet!" Dickie Johns, their five-year-old seconded his father's suggestion.

"Yeah, mom. You bet!" Lory Johns, Dickie's eight-year-old brother said, suddenly realizing that, as the older son, he should have echoed his

father first.

Mildred Johns was pleased. It always gave her real pleasure to have her family voice their delight with her cooking. This morning was no exception. "Then let me see you finish them all," she said. "Got to get your strength up, you know. You promised to do the lawn this morning."

"Mother's right, fellas," Harry said, as he grabbed for the next to last biscuit. "So let's get on the ball.... Dickie! Don't try to drink all your milk in one swallow!"

Dickie's round dark eyes came into

view over the lip of the glass. "Gee, Dad! You do it, and I want to be big just like you."

"Do as I say, Dickie," Harry John's voice took on a fatherly tone. "After all, your father has a mouth big enough for it."

"Your father's right," Mildred Johns said with a straight face.

Harry gave his wife a tired look and downed the last of his coffee. "Last one out's a stinkfish..." He didn't wait for the children but dashed wildly from the table. Too wildly. The cord for the electric coffee-maker was still connected to the floor socket. He tripped over it.

He wondered what a stinkfish was, as he walked with chastened steps toward the children awaiting him, five minutes later....

HARRY JOHNS looked at the small mound of dirt and voiced his eternal complaint: "Darn gophers!"

The boys echoed him: "Darn gophers!"

He looked away from the mound and toward a large bare spot on the lawn. It had the appearance of having been sprayed with sulphur. The gophers had been the cause. It was a peculiar thing about the gophers. The whole neighborhood had been infested with them. At one time there wasn't a lawn that didn't have its face pocked by the little hillocks of dirt. Now all was green and clipped up and down the street, all but the Johns' lawn. Harry couldn't get his lawn to look neat, no matter what he did.

The gophers saw to it....

He looked again at the brown spot and thought back to that Sunday when Tom Wilson, his next door neighbor, had come on him bent in frustration over one of the mounds.

"Sulphur. That's what did the trick

for me," Tom said. "Try it."

Harry looked up at the brown face and wondered if this was another of Tom Wilson's practical jokes. But the eyes of the other were as innocent as a child's.

"Sure?" Harry asked.

"Ask Laura," Tom suggested. Laura was his wife, and hated Tom's jokes as much as Harry Johns did.

"I'll take your word. How do you go about it?"

"Easy. Spray it. You got what looks like an entrance and an exit. Those buggers are pretty cute but I was cuter. I sprayed not only around the holes but also the whole area from one to the other. Got rid of 'em in a day."

Harry sighed. All the sulphur had done for him was ruin that part of the lawn. The next morning there were two new mounds of dirt.

The boys broke in on his thoughts.

"What do you want us to do, Dad?"

"You fellas mow the lawn around the gopher holes," he said. "I'm going to try something new."

The lawnmower was in the garage. To the boys' surprise their father walked to the garage with them. They forgot all about their errand when they saw their father open the door of the car, step in and start it. Then he stepped out and got a new length of rubber hose he had bought because his old hose was becoming worn, and attached it to his exhaust by means of friction tape.

They watched him in wide-eyed interest until he attached the hose to the exhaust. As usual, it was Lory who asked the first question: "What you doin', Dad?"

"I'm going to fix those gophers, but good," he said. "I should have thought of this sooner. We're going to asphixiate them."

"You mean all of us, Dad, huh?"

Dickie heard only the "we're".

Lory had something else on his mind. "What's *axphisiate*?"

"Gas 'em to death."

Lory gulped and a sickly look spread over his sun-browned face. But Dickie was all excited over the prospect.

"Gonna asphisate them!" he shouted. "Mean old gophers! Gonna asphisate them!"

THERE WAS enough length to the hose so that he could reach to all the holes on the lawn. With the aid of Dickie—Lory refused to have anything to do with the operation—Harry Johns let each of the holes have five minutes of the carbon monoxide. Presently he was at the last of the gopher holes, both bordering the rear fence on a parallel line. He stuck the end of the hose into the first hole, squatted on his haunches with Lory and Dickie to either side and waited to see if there was any result. Nothing visible had happened at the other holes.

"Thay, fellath..."

It was a small voice, shrill as an off-key flute, and as commanding of attention.

"...Fellath..."

"Go 'way, Sammy," Lory said without turning his head. "This isn't for little boys."

"It thertainly ithn't. Big boyth neither."

Dickie decided it was his turn: "Go 'way, Sammy, 'fore I chase you... Gee!..." He had turned to make his threat more dramatic by showing a scowling brow and the last word had trailed off in a sort of helpless mew of sound.

Harry Johns gave Lory an irritated glance, turned his face away, then turned again toward his stricken younger son. "What's wrong, Dick?"

But Dickie could only stare.

Harry followed his son's glance and felt a thrill of awe. "A-a talking gopher. Honest..."

"Courth I'm honeth. 'Bout time you paid attention to me. I wath beginning to worry."

Now Lory entered the scene. He, also, had been intent on what his father had been doing, and thinking the voice he had heard had been that of Sammy, a small-boy playmate of theirs, had not bothered to look. But at his father's words, Lory also turned. For a moment or so there was silence following the lisping words.

Then: "Thuppoth we talk thith over?"

"A talking gopher..." the three humans used the same words over and over to each other, as if in assurance of an unbelieving fact.

"F'r goodneth thake!" The gopher didn't think his talking so great a thing. "Tho what? My grathous! Ain't you fellath never theen a talking gopher before?"

Harry's children were more resilient than he. Lory stepped forward until a two-foot space separated him and the rodent-like animal. "Sure we seen gophers before," he snapped. "But we ain't never heard one talk before."

"Jutht like a human," the animal replied. "Alwayth jumping to concluthionth..." his lips twisted the word *conclusion* to something unidentifiable. "Never heard one talk, tho we don't talk. Thank goodneth I'm a gopher." His voice took on a note of asperity: "What'th the matter with him. Thumthing unmentionable got kith tongue?"

"What does he mean, Dad? What does he mean?" Dickie's curiosity was again aroused now that the fact had been established the gopher could talk.

The shock of hearing the little animal talk had also passed for Harry Johns. "Oh, I guess he means cat," he said, as he came forward to join his eldest son.

"Gueth again," the gopher replied. "He may be man'th betht friend but he'th jutht a pain in the neck to uth. Dumb animal!"

THEY TOOK immediate umbrage at the words. Lory carried the standard for the Johns family this time: "Don't you dare say anything against our dog! *Whopper's* the smartest dog in the whole world!"

"My boy," said the gopher, "he couldn't be that if the whole world wath only thith lawn. But I will thay thumthing for him. He'th the only dog we know who hath a 'theeing eye' human to help him find the boneth he'th buried.

"But we're digrething, I wath athking what you were doing with that hoth?"

"Smartest dog in the world, Whopper!" Dickie made a last stab for loyalty's sake.

"Be quiet, Dickie!" his father commanded, then struck a pose of righteous anger. "Now what did you think we were doing? Drilling for oil?" He didn't wait for an answer. "We're just sick and tired of having the lawn dug up every night. Look at it. . .!" he waved his hand in a wild gesture which almost took the top of Lory's head off.

"What'th wrong with it?" the gopher demanded. "Nithetht lawn in the whole neighborhood. My family'th been here for generationth."

"It *was* the nicest lawn in the neighborhood!" Harry complained bitterly. "But look at it now. My neighbors think I'm lazy, my pal next door thinks I'm stupid, and my wife doesn't know which is right."

"Maybe I can help her to dethide," the gopher broke in.

"...So I thought it was time to take stringent measures. *Asphixiation*, that's what I decided on!"

"*Athphixiation!*" a shudder of horror shook the small furry frame. "Thath *murder!* How can you do thuch a thing?"

"Easy," Dickie said. "Dad just lets his motor run."

"Thum motor," the gopher muttered under his breath. "With half a thylander more it would be the only one-thylander motor in the world." Then, aloud: "Can't we thort of compromithe?"

"Sure!" Harry Johns said firmly. "Get out from under my lawn."

"But where'll we go? You know what houthing ith thethé dayth?"

The question was food for thought. Harry chewed on it for a couple of seconds. He didn't like the taste of it. "Well, gosh! Isn't there someplace you *can* go?"

The gopher hopped back and forth a couple of times. He paused shortly and worked his head up and down twice. "Tell you what. I'll talk it over with my relativth. Thuppothe we let thingth thtath the way they are for the prethent?"

Harry Johns looked to his sons to see how they took the gopher's suggestion.

"Sure, Dad," Lory said.

"Gee, Dad," Dickie said. "I like him."

"Well," Harry said. "Okay. When will we see you again?"

"Tomorrow night, thoon ath it getht dark."

"THINK WE oughta get outa here, 'Tin-ear?'" 'Swiftly' Malone asked. "Those kids'll be wantin' in pretty soon."

"Nah!" Tin-ear growled. "They

wanta play ball, can't you hear? Just the one littl' stinker, he don't wanta play."

"That's what I mean. S'pose *he* wants in?"

"Sh! He's soundin' off again...."

They could hear his voice: "...You'll be sorry! My Daddy says we have the only talkin' gopher in the whole world. My Daddy says I c'n train him, too. C'mon back and I'll tell you all about him...."

The two men in the plasterboard shack could hear a jumble of shrill sound in reply, then a single voice louder than the rest: "...Dickie Johns is a liar! Ain't no such thing...."

"Is too," the first voice said in angry vehemence. "Is too! You'll be sorry... Wait till we're on television! My Daddy says we're going to have a barrel to make our money in."

"That kid's missing all his marbles," Swifty said.

"I don't know about that," Tin-ear said. He stroked the five-day-old growth of dark beard. "Funny thing about kids. I got to know all about them—used to be a crossing guard once—and I noticed they was all a little nuts. But even when they told a lie, there was something true behind it..."

"They ain't no different than us," Swifty broke in.

Tin-ear continued to stroke his beard with a look in his eyes that said he hadn't heard Swifty: "...I'll bet our only dime that kid and his old man found a talkin' gopher! Watch him, Swifty, and when he passes the shack we'll follow him."

Dickie Johns looked with dark and glowering glance and upthrust lower lip at the crude lettering on the plasterboard shack as he passed. The lettering said "Hoppie Juniors" in a scrawled script. Nor did he see the

tiny crack of the partly opened door.

HARRY JOHNS hummed his favorite tune as he trotted down the ramp which led to the loading platform for the Glendale-Burbank red cars. The humming died and a wary look came into his eyes as he spotted Tom Wilson's burly figure leaning against a pillar. Harry knew they were going to sit together and that soon or late the talk would turn to the condition of his lawn. He wasn't quite sure that he ought to tell Tom about the gopher.

The matter was taken out of his hands the instant they were seated.

"What's this Laura was telling me, Harry?" Tom asked.

"How should I know?" Harry asked, all innocence.

"She said you and the kids were having a grand palaver with someone in the garden yesterday morning. She was passing the hedge and caught a snatch of the talk."

"Caught a snatch?" Harry asked wildly.

"Yeah, but she didn't get all of it."

"Oh!" Harry was relieved.

"Something about a hole in the ground."

"We've got so many," Harry said.

"Which one was she referring to?"

"Harry," Tom said patiently.

"Harry-boy. It's me, Tom Wilson, your buddy, the guy who knows all your secrets. I got them off that silly puss of yours. It gives everything away. So up with it. What's with this hole in the ground?"

Harry knew he was caught. He felt oddly relieved, then knew that though he had made the boys promise not to mention the matter of the talking gopher, this was one time he had to talk. Invariably it was Tom who had the important tidings to report. Well, now maybe Tom would sit up and

look and listen with respect. Why, as he had told Lory and Dickie, there was a barrel of money in a talking gopher. Look what they did with talking dogs and mules in the movies....

"We've got a gopher..." Harry began.

"Ha-ha! You've got a gopher... You've got *millions* of 'em."

"...Who talks," Harry went on.

Tom stopped laughing. Sometimes Harry Johns talked and acted a little wacky, but this about a talking gopher was going a little too far. Unless it was a gag...? He threw Harry a quick look but the simple features were arranged in their usual pattern of open-faced innocence. Tom scowled. He didn't like playing straight man. Not to Harry Johns, anyway. No, sir! Harry was his own fall guy, the butt of his jokes. It wasn't going to do to have Harry play gag-man....

"SO IT TALKS, hunh?" Tom asked. "And what does it say? What did it tell you? That maybe the Angels are going to win the pennant?"

Harry Johns felt a glow of content. Not only was the shoe on the other foot, but the sock as well. He noticed the flush on Tom's face and interpreted it correctly. Tom wasn't happy about what he'd heard. I'll really make it good, Harry thought.

He made it too good.

"No. We didn't talk about them. But he did tell me who was going to win the fight tonight at the Olympic between Lopez and Sardi...."

Tom scoffed: "What's so hard about that? It's Lopez, by a country mile. Every writer makes it a knockout by the fourth, and goes on to say that match is one of the worst ever promoted. But what the heck am I talking up your alley for? Gophers who talk... I must be nuts to listen to you."

Harry kept silent. He realized that he had bitten off a little more than he might be able to chew if Tom wanted to make something of it, and knowing Tom, it might well be he would.

He was right.

"Hunh, I suppose he said Sardi would win?" Tom continued after a few seconds.

"Yes!" Harry said it before he could stop himself. But Tom Wilson's pugnacious unqualifying comments always irritated him.

"Tell him he's nuts!"

"I don't think he is."

Tom laughed.

It was the straw that broke Harry's back. "I got ten dollars says Sardi will win."

"By a knockout, I suppose?"

Too late. Again Harry's mouth was open before he could stop himself: "That's what he said."

Tom was his smiling self again. What a sucker. Always leaving himself open. Got himself stuck with a talking gopher story and has to back it up. Well, Harry Johns' money was as good as any. Better. Harry lived next door; it was so easy to lean across the hedge and needle him. He pulled out his billfold and gave Harry a sawbuck.

"And about that gopher, Harry," Tom went on. "How about me meeting him, tonight?"

Harry gulped. He didn't know how the gopher felt about meeting others. Besides, there was the problem to be settled tonight. "Uh. Not tonight, Tom. Gonna be busy. Besides, gotta watch the fight, y'know. My boy's gonna take yours."

"Let's make it over at my place then, Harry."

Harry Johns had to find an excuse and quickly, otherwise the other

would force the issue again. "No, Tom. We always have the same argument. I like my screen better."

"Okay, Harry," Tom said. "Now let's see. They're the main event and Lopez shouldn't take more than four rounds to give Sardi the works. I'll be over to your place around ten-thirty to collect my dough."

DINNER WAS lacking the usual stimulus of Harry Johns' chatter with his wife and sons, and the boys, as though taking a cue from their father, were also silent. It was Mildred Johns who broke the quiet.

"Something odd happened this afternoon, dear," she said. She made a silent note of his blank stare, and continued: "But I'll swear those men followed Dickie home."

The blankness left Harry's eyes. "What men?"

"The ones who followed Dickie home."

"Aw, mother..." Dickie began.

She *shushed* him. "Never mind, Dickie. I say those—rough-looking men *were* following you. Harry, they stopped when Dickie ran into the yard and stared at the house as if placing it in their minds. I was scared."

He tried to pass it off as nothing: "Imagination. Women have too much of it. They were probably looking for a handout and changed their minds."

"Not those two!" she was positive. "They were up to something."

"Well, Whopper'll take care of them if they come around at night," he said.

She sniffed loudly. "Whopper! He's scared of his own shadow."

The boys flew to their pet's defense and for the next few moments there was the familiar confusion and shouting. She noticed how quickly the boys ate nor was their father much behind them. Immediately following

the dessert the boys and Harry arose and started for the door.

"Oh, no!" Mildred grasped for Harry's hand but he evaded her. "Hey. Don't leave me with the dishes."

"Stack 'em up, dear," her husband said. "We've got to do the lawn."

There was something peculiar about this sudden desire to do the lawn; she thought as she started the water in the pan. Harry was one of those I'll-do-it-later men, though the boys never shirked any labor. She recalled the lost look in his eyes, and felt sure it had to do with the lawn. Then, suddenly, she was smiling. No matter how deep the secret, she knew her husband well. He wouldn't be able to keep it...

"SORRY, FELLAS," Harry Johns was adamant. "No use begging. The gopher said tonight all right, but he must have meant later in the night. Your mother'd have seven kinds of fits if I ask her to let you stay up."

"But there's no school tomorrow, Dad," Lory tried his last reason.

"The best I can do is ask him to make it earlier tomorrow. He seemed like a reasonable sort."

Their heads were at half-mast as the two youngsters walked toward the house.

The spring dusk settled with infinite gentleness on the garden while to the north the Verdugo Hills lost their sharp contours and became a blurred mass of bluish-grey. The man in the garden moved slowly back and forth, from one gopher hole to another across the span of the fence.

Then quite suddenly it was dark.

"Thay there..."

The man stopped and peered down at the spot from which the sound had come. There was sudden movement;

dark shadowplay against a darker background.

"...Over here. By the fence."

He saw the shape of the tiny thing then and moved close to it and squatted on his haunches close to it.

The first thing Harry Johns said was: "Did you get me on a spot!"

The gopher was astounded. "Me? What did I do?"

"I told someone about you and we made a bet on a prizefight. I told my neighbor—that's the man I told about you—that Sardi would win; I told him you said so."

"How thtupid! Jutht like a human."

"You mean Sardi won't win?" Harry's voice was sepulchral.

"How do I know?" the little animal replied. "I don't even know what a prithefight ith. But leth get down to facth. I thpoke to my relativth today and we can't agree. They like it here."

But Harry wasn't listening. Ten bucks! That damned Tom Wilson!

"You thee, the grath here and the rootth are the betht in the neighborhood," the gopher went on.

Sardi wouldn't win! Harry was already feeling the needle's point. And Tom was the kind of character who would put it in all the way and leave it in. Oh, damn!

"...But I'm going to talk to them again later. You're thtupid but I like you. Bethideth, that thilly thing you call a dog ith my family'th only amuthement."

"What time is it?" the man asked wildly. The fight! It should be on.

"Thay!" the gopher was disgusted. "I didn't come here to talk of thilly human things. If you're tho interethed in thith fight why don't you go to it?"

"I will. I will!" Harry staggered erect, stumbled over the lip of a go-

pher hole and fell on his face. He was making so much commotion himself he didn't hear the sounds of movement on the other side of the fence. "See you later," he called over his shoulder as he ran toward the house. "About eleven...."

"Eleven...?" the gopher murmured. His furry wedge-shaped head waggled on his shoulders as he trotted back to his hole. "Whatth eleven?"

"WHAT DID I tell you?" Tin-ear chortled. "The kid was telling the truth."

Swiftly, squatting beside his companion, was still open-mouthed and wide-eyed. A real talking gopher. Not even in his wildest gin-dreams had he heard one! Tin-ear was right! If they could get hold of it there would be a fortune in it. No more shoving around from the flatties; no more knocking off cheap 'burger joints on side streets for a couple of bucks. Like living on velvet....

"Now all we got to do is get a sack, come back and wait till the thing comes out and grab it," Tin-ear said.

A sudden thought gave Swiftly pause. "Yeah. But what do we do with it?"

Tin-ear scratched the misshapen flesh of his left ear, the result of being hit by a beer bottle in a barroom brawl. That was a problem! Maybe you could pawn the thing...? He shook his head. Nah! Imagine carrying a live gopher into a hock shop and asking the guy for some scratch on it. Nah! The pitch was to sell it for what it was, a talking gopher. Hunh! This thing was goofier than it had seemed. He pulled his pal to his feet.

"We'll figure something out once we got him," Tin-ear said.

"Okay, Tin-ear. When do we make the snatch?"

"That jerk said he'd be back about eleven. So we'll be there too. And when he leaves we'll call the gopher out and grab him. Now we go to that grocery down the block and get us a potato sack. That's all we'll need."

THE ANNOUNCER was giving the histories of the main eventers. The shouts of the crowd were a muted background to his voice. Even on the television the air was tense and exciting. But to the man sitting hunched in the easy chair nothing mattered.

Mildred Johns looked away from the magazine she was reading and said: "What's wrong, Harry? You're very quiet."

"Hunh? Oh! I was thinking about something."

"The lawn?"

"You mean the gopher," Harry said.

"What gopher?"

Might as well tell her, he thought. He did.

There was a long moment of silence afterward. Then Mildred, speaking with careful words, said: "Harry, I told you to ask your boss about a vacation this year. You haven't had one in three years and I think that's too long a time. Tomorrow, I want you to walk in to Mr. Givens and demand it."

"Millie... I told you a week ago they're giving me a whole month with pay; all of August."

Of course he had, she remembered suddenly. Then it wasn't the press of his job which was causing these gopher delusions. The children. Heavens! They too...

"Harry! You'll have to stop about the gopher. You'll have to stop because of the children. You must remember their minds aren't as strong as yours, though I can't speak too well about yours now, and they'll sweat

they heard the gopher talk, so long as you keep insisting you heard it."

"But I *did* hear it!"

"Very well, Harry! If you insist. But I don't want the children around the next time you go into the yard, understand?"

"Oh, Mildred! Can't you see how silly you are?"

"I am? Dear God in Heaven! If there's anyone... But let's stop this talk. You wanted to look at the fight. Well, it's on."

Harry Johns knew better than to carry on. Not when his wife used that tone of voice....

LOPEZ HAD everything Sardi didn't. He could box, he could slug, he had the reach, the surety, and the punches. All Sardi had was the guts.

Two rounds went by and, miraculously, Sardi came up for the third. It was during that round that Harry noticed something he hadn't before. Sardi had a clumsy, shambling style which seemed to enable Lopez to connect frequently, yet none of the blows was doing any real damage. It was the odd rolling style which was doing the trick for Sardi. He was taking most of the blows, either going away, or in his elbows and shoulders.

Now it was the fourth, the round which the sports writers had called the limit of the fight.

It was... Lopez caught the haymaker Sardi threw from the floor on the side of the jaw, his eyes turned glassy and his knees buckled and he fell straight forward on his face. There wasn't any need for the referee to count. Lopez was through for the night.

"Where are you going now?" Harry's wife asked. She sounded bitter.

"Have a nice talky-talk with the itsy-bitsy gopher, maybe?"

"No," he mocked her. "With the

itsy-bitsy Tom Wilson. He owes me something I'm going to give back to him right now. The pleasure of sticking the needle into him like he's done to me. Hah! Lopez. What a bum!"

Some of the bite left her voice. "It's about time you gave Tom Wilson a good-sized taste of what he's been giving you all these years."

He turned at the door for a last sally. "And this is only the beginning. Wait till that gopher really gets going."

There had been a moon earlier. Now it was quite dark, the street lamp being too far off to shed much glow on the yard. Harry waited till his eyes accustomed themselves to the gloom before moving toward the fence. He had hoped that Wilson might be there but only blankness rewarded his prying glance. Oh, well, he thought. He'll be out later. And just as well. My little buck-toothed friend might not like it.

Presently he was at the lip of one of the holes. He knelt before it and whistled a few bars of music. Nothing. He whistled more bars, and shortly he had whistled the whole song. Nothing. He thought, wasn't there a name...? Sammy...? No! That had been the name of Lory's little friend, or was it Dickie's? No matter. It wasn't the gopher's.

He tried again.

Nothing.

The third try brought results.

"Harry...?"

It was Tom Wilson. But not the Tom Wilson Harry had known all these years. Tom's voice had a hollow, defeated sound to it. It sounded whipped.

Harry stood erect and walked to the fence and leaned against it.

"Lucky," Tom said, trying to make his voice casual.

"Lopez! I said he was a bum!"

Harry began to pour the salt in.

"Lucky..." Tom seemed to have lost the use of the rest of his vocabulary.

"Of course I should give credit where it's due. My little gopher friend. He's going to make me some real dough, Tom. He said something about the Angels for tomorrow night. Like to get all or any part of your ten bucks back?"

"What'd he say?"

"It'll cost you money to hear it," Harry rubbed the salt in this time. "You love the Padres. Do I hear you say anything?"

"Well..." Tom hedged.

"That's what I thought!" Harry laughed. "You ain't got the guts."

"Now wait a minute," Tom blustered. "You got this damned animal helping you."

"What animal?"

"The one you told me about on the train, the gopher."

"Man, oh man! And you believed it? You'd buy anything. What gopher?"

There was no answer to that question. For though Harry stayed in the yard a full half hour after Tom left, the gopher seemed to have departed this world.

Only he hadn't.

He was in a potato sack which once had belonged to Mr. Pappas, the corner grocer....

"GOT HIM...?" Swiftly bent over the sack, the neck of which Tin-ear was drawing closed.

"Like in the bank, Swiftly. Like in the bank. Now let's blow out of here before the jerk who lives here comes out again."

Swiftly was trotting beside his taller companion as they talked. He stood an inch or so below Tin-ear's shoulder and was forced to trot to keep up

with the other's longer steps. "Be-bet-better slow down, Tin-ear," he gasped presently. "Some cop'll get nosey we keep moving this fast. 'Specially with the sack we got."

For once Tin-ear took his friend's advice. But more than that he was suddenly curious about something.

"Y'know, Swifty," he said as he slowed first to a walk, then to a complete halt, "there's something screwy about this gopher we got."

"Huh?"

"Yeah! It ain't said a word since we grabbed it."

"Maybe it needs a little air," Swifty thought aloud.

It was a wasted effort.

"And have him hop out. Don't be dumber than you haveta be. Nah! Maybe I better find out right now? Hey in there..."

The silence which answered was complete.

"Hey, gopher!" Tin-ear tried again.

Not even the echo to his voice.

"Think maybe we got the wrong one?" Swifty asked.

The same thought had occurred to Tin-ear, only he had been afraid to voice it. "Maybe..."

"So what?" Swifty demanded. "Let's go back and get the right one."

"Not a bad idea, Swifty," the other said. "Except..."

"Huhh?"

"Did you notice how many holes there were in that yard? It'd be morning by the time we went to every one. And, y'know something, Swifty..."

"What?"

"Gophers don't talk. But you take a guy like that Harry character with a couple of kids, he could be playing games. Throwing his voice, making 'em think the gopher was doin' the talking. I got a feelin' we was taken for suckers, along with his kids. We cught to stick to our reglar caper.

Never did see a 'burger joint that wasn't good for a couple of bucks."

The wild visions of wealth Swifty had dreamed up dissipated into reality. Tin-ear was right, as usual. Gophers couldn't talk. If they could they'd of had 'em on the stage a long time ago....

He let his breath out in a long sigh. "Yeah. Well, what do we do, dump the sack?"

"Back where we found it. I spotted a 'burger joint on the next street, this afternoon. Can't waste the whole evening."

THE TWO petty thieves climbed the fence again and dropped heavily to the other side. Tin-ear opened the sack, and let out a bull-throated roar of pain. The gopher had bitten out a piece of his thumb. The echoes had barely died, when the gopher, who had hopped out of harm's way, suddenly said:

"Thankth, fellath! Nithe of you to bring me home."

"Why you..." Tin-ear made a wild stab for the small animal.

He was far too slow. Nor was Swifty any quicker. Quite suddenly there was a new sound, a low roar of anger, the sound of a dog who had scented trespassers. And with the sound dazzling light broke on the scene.

"Stand still," a masculine voice shouted.

And from the darkness on the other side of the fence, came another voice, as if in echo: "Stand still. This shotgun's loaded in both barrels."

Then there was the sound of a woman's voice: "Harry! Please be careful. I've called the police. They'll be here in a second."

"Don't worry, lady," Tin-ear called fearfully. "Just tell your husband not to fiddle with the triggers like that. Those things are dangerous."

But what none of them heard was the sound of the gopher's busy teeth. He had tried a sample of the grass in Tom Wilson's yard and had decided he had been living on the wrong side of the fence. The grass *was* greener on *this* side. And better tasting.

Tin-ear and Swifty had made the mistake of placing the gopher on the wrong side of the Johns' fence.

By the time the police came the gopher had burrowed under the fence and was back in his old burrow. He heard nothing of what went on, nor did he care. He had some information to give to his friends and relatives, and there were a great many to see before morning....

"**SAY, HARRY,**" Tom Wilson said, as the women went back into the kitchen for more coffee and sandwiches, "those bums insisted they heard someone talking to a gopher, and that the gopher answered back."

"I told you that was me," Harry said with a grin.

"But you said..." Tom began.

Harry laughed. "Well, I still say the Angels are going to win tomorrow. Inside dope."

But Tom wouldn't take the bet. There was something queer about the whole thing. He knew there was something definitely queer about it when he started for work the next morning.

His beautiful lawn. Ruined. There wasn't a square yard of it but didn't have at least one hillock of dirt to show the presence of gophers. And when he looked at his friend's lawn he was amazed to see that though there were patches of bare earth, there weren't any of the tiny hills....

The only one who knew what had really happened was Whopper. And had Harry Johns looked under the flooring of the garage he might have understood. All the bones Whopper had stolen from him now lay in a whited pile where someone had put them the night before.

And that someone couldn't have been the Wilson cat....

THE END

THE ART OF LAPPING

By Sid Seeman

SOMETIME ago this magazine considered the all-important question of friction, a scientific phenomenon which has not been and is not yet satisfactorily explained. With all of science's tremendous power, it still can't tell you what causes friction! But this doesn't mean that the scientific world doesn't know what do do about it. Far from it. Our machines run now, so friction must have been satisfactorily conquered, if not explained.

A technique, almost as old as science, yet as new as tomorrow's rocket, is the process of eliminating-friction between two parts by "lapping." The art of lapping two parts is the art of making them smooth and frictionless when lubricated. It stems from working with glass and

from making precision tools, and is now being extended to mass-production work. Lapping consists of taking the two parts to be mated, putting a little oil and fine abrasive between them and rubbing them together with a random motion. Eventually, they will become so smooth that they'll stick together just by molecular attraction! In a machine, when such mating parts are used with a suitable lubricant there is almost no wear at all!

Optical apparatus has long made use of the lapping process, and fine machine work has been done that way. The famous Johannsen precision gauge blocks were made that way. This process of "super-finishing" is coming into general use in the manufacture of many things. The tre-

menhous longevity of the ordinary household refrigerator is due to the fact that the bearing surfaces, where metal rubs against metal, have been "lapped-in". Automotive manufacturers and armament producers are discovering the enormous increase in life given to mechanical parts which bear against each with lapped-in surfaces.

Using lapping techniques affords the one sure way of making perfectly straight lines or perfectly flat surfaces, and this is where the process was originally discovered. For example, if you wish to make a perfect straight-edge, you take three metallac rigid strips, and grind one against the other, continually alternating and comparing them as you lap them with your fine abrasive. Eventually, you will reach the point where if all three may be placed edge to edge, one after the other, with any one of the other three, you know you've achieved perfect straightness. The same thing follows for flat surfaces, except that here examination for flatness is made with a monochromatic light test and Newton's rings.

"So Shall Ye REAP"

BY

CARTER WAINWRIGHT

THE TITLE "So Shall Ye Reap..." is best remembered as an outstanding Rog Phillips story in the *Amazing* of a few years back, but it has perfect overtones for the title of an article like this, concerning a major revolution in the most ancient of Man's labors—farming. Farming, a subject far removed from the laboratory, is usually equated with the most difficult of all jobs. The farmer's life has been pictured as back-breaking and just short of slavery, perfectly comparable to the blind pest-holes of the Industrial Revolution of a hundred years ago.

But anyone who still retains this idea requires a complete reorientation! Farming has changed almost overnight from a sort of brutish serfdom to an incredibly mechanized Never Never Land.

With the tractor, the gasoline engine and a host of earth-working and crop-working machines to be attached to them,

farming has all but become a science in the last thirty years. Machines have taken away much of the back-breaking labor associated with working the Earth and have enabled one man to feed ten.

In the last decade, with the almost complete electrification of farms, a new dimension was added to farming. Even though the back-breaking labor was gone with the coming of the gas engine, a still-remaining multitude of chores which could be done only by hand made the farmer's work a dawn-to-dusk job. Electricity changed and is changing this. From pumping water, the basic job, to milking cows, to doing a thousand different chores, the electric motor has vanquished the bugaboos of time and labor for the farmer.

While gasoline and electricity have made magnificent strides, the latest development in modern farming, the use of the airplane and the helicopter, is going even further. Sowing and seeding land, spreading insecticides, spraying crops, reforesting denuded regions, providing fabulously rapid transportation over huge areas, these machines of the air are converting farm life into a way of life which in turn is making the farmer less earth-mover than mechanic!

With the problems of labor, distance and time annihilated, farming in no way differs from any sort of urban job. In fact it offers many more advantages as a way of life than does the formerly "glamorous" city life. This is testified to by a slowly but surely increasing return to farm life by many young people who are attracted by the elemental nature of the work as well as by its new ease.

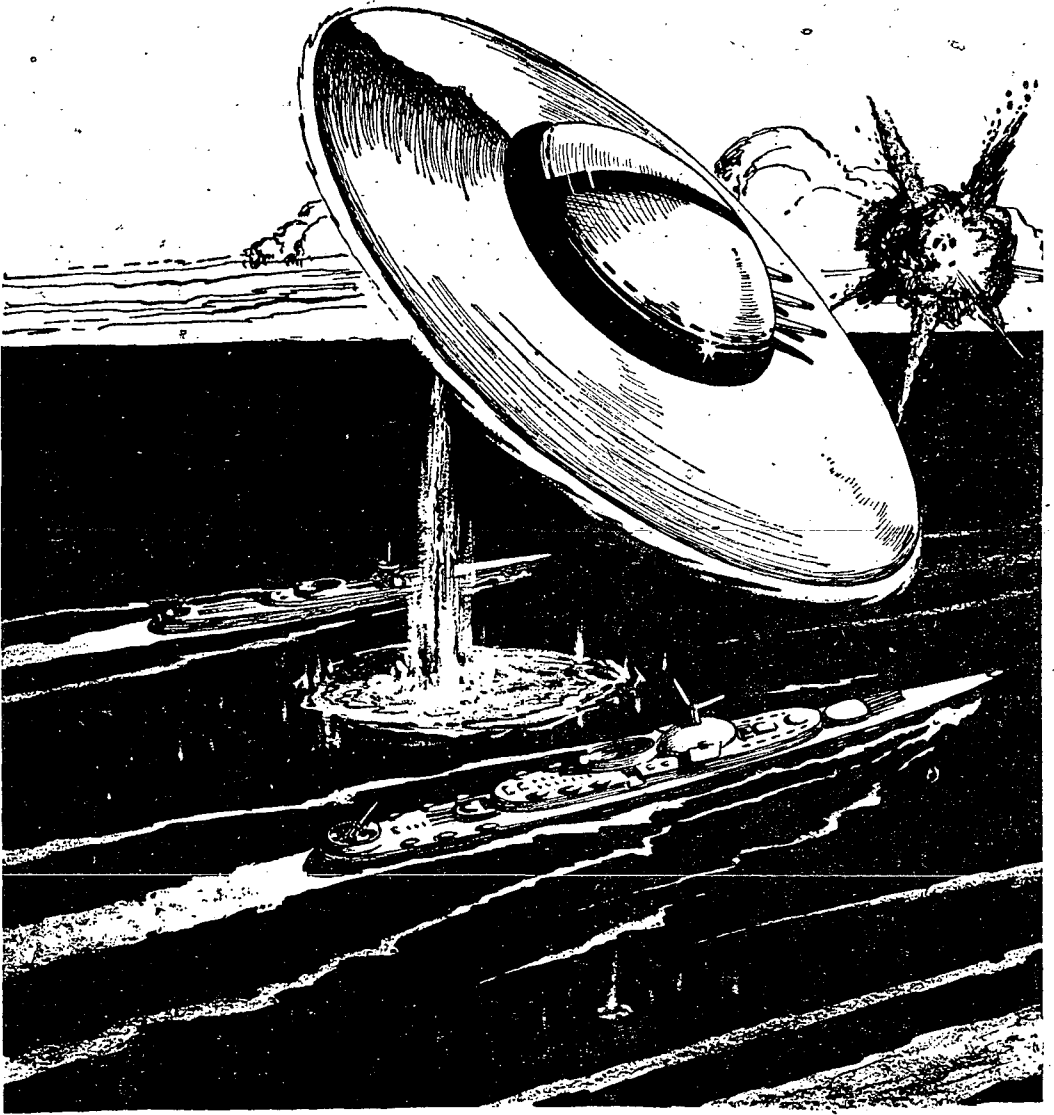
The future will see a new species of "gentleman farmer". Drudgery will be a thing of the remote past. With machines to supplant muscle, and vacuum tubes to supplant monotony, the mechanization of the farm is the immediate future's most interesting revolution!

Earth's First Insect

A SPECIES of insect which is believed to be one of the very earliest stages in the evolution of insects on this planet has just been found in South America.

These are the proturan—very tiny creatures who are blind and wingless. They are found under bark and in leaf clutter. Very sluggish and slow-moving, they have three pairs of legs but use only two pairs for locomotion. The front pair apparently serves the purpose of antennae, and is held up in front of the insect as it moves. Very primitive sense organs of touch are located on the front pair of legs.

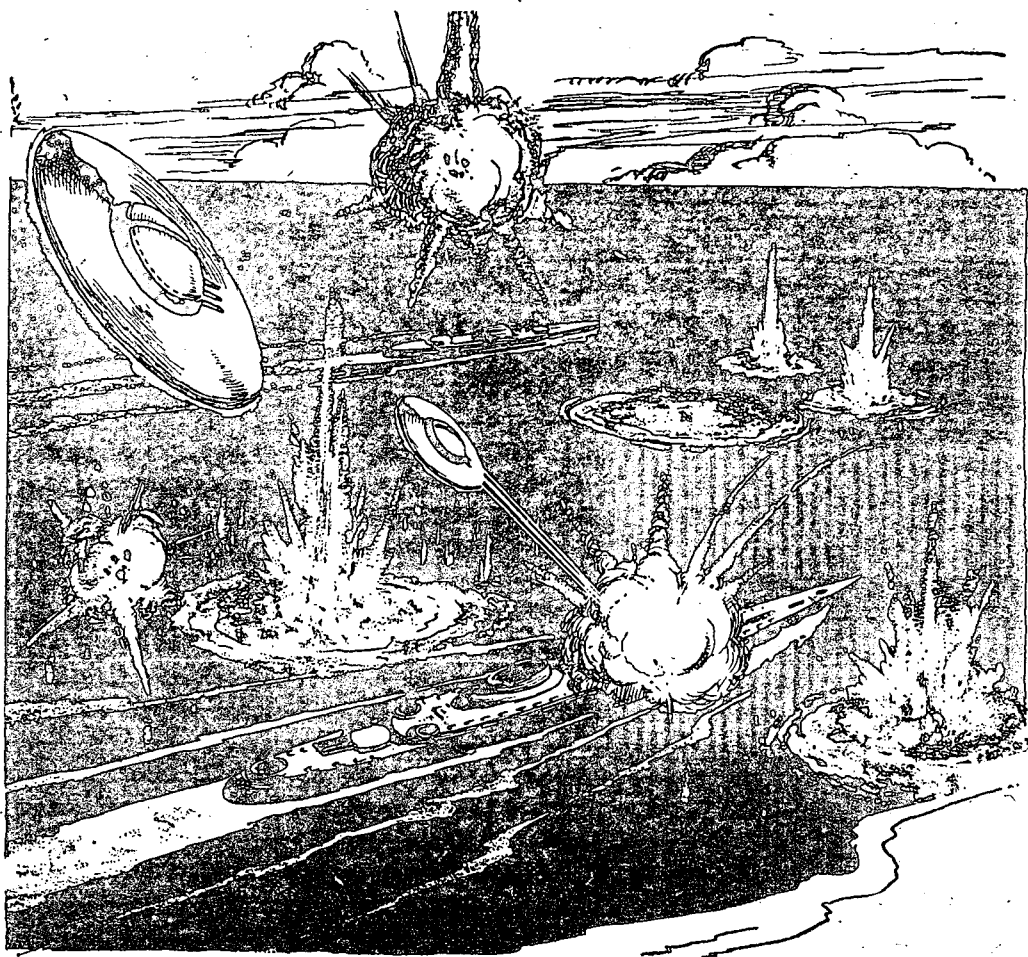
—A. T. Kedzie



DEATH BEYOND THE VEIL

By E. K. Jarvis

War on such a scale as this seemed past human endurance. It was fought with a savagery beyond all human understanding



The saucer-ships fired with deadly accuracy

“GET THE lead out!” Larry shouted above the roar of the four motors.

“Look who’s talking!” Walt shouted back as he climbed into the tube that led from the front of the B29 to the tail guns.

Larry, just behind him, rapped playfully on the soles of his dragging shoes, trying to force him to crawl

faster. He succeeded.

As Walt slid out of the tube into the tail section, he looked affectionately at his “baby”—one of the tail guns.

The ship started to move slowly down the runway, and both men settled back for the long run ahead of them.

Unconsciously, Walt’s face settled into lines of worry and his eyes looked

through the ship and far away.

"What's eating you?" Larry demanded.

For a long moment Walt did not answer. Around them lay the vastness of the air ocean, showing a few white clouds and the limitless feel of infinity that stretched to the incredibly distant stars. Sometimes the men in the flying forts could see, or thought they could see, Death flogging a bony mount down the blue arc of the heavens.

"I don't know," Walt said finally to the question. "This is a dream."

"Yeah, I know," Larry said soberly. "We're still just kids in school. The reality to us is going to school and dissipating at the corner drug fountain, not going up into the sky in a three-hundred-thousand-dollar ship to drop bombs on Japs. Sometimes I have to pinch myself, too—just to make sure it isn't a nightmare."

"That's what it is. A nightmare," Walt said. "It's just a nightmare I'm having, while in reality I'm growing up and raising a family somewhere, and working at some quiet job, and the world's at peace. Only—"

He stretched out one leg and shifted his cramped position.

"A part of the nightmare is the hunch that we're not coming back this time," he added.

"Nuts," Larry snorted. "The Japs don't have anything that can touch us."

"I mean it!" Walt insisted.

The droning of the motors seeped in. At one time it would be loud and throaty. Then it would sound muffled. Far below, the coastline of China could be seen. The plane was heading out into the ocean.

Almost at once the coast of Japan came into view. Then there were the slight lurches as the bombs let go, one at a time. These were the big bombs,

and the bombing was systematic.

FAR BELOW the flack bursts lit up the landscape. Then the bomb explosions could be seen. Still no Jap planes had come close enough for Walt and Larry to use their equipment.

Then something hit the ship. The tail section swung insanely. Walt's eyes couldn't get fastened onto anything, and there was a rush of roaring wind that sucked the breath out of his lungs.

He was cold, but his face seemed warm. Nice and warm.

Then his eyes and the ship came together so he could see details again.

Larry was still in his place at the other gun, but his jaw had been torn loose, hanging by an inch-long strip of skin and some long strings from his tongue. There was a look of bewildered puzzlement on the rest of his face.

Walt knew that Larry was trying to say something and couldn't understand why his mouth wouldn't work.

Walt's mind had divided into two parts. One was photographic, registering sounds, feelings, and sights, as a movie camera might do. The other was calmly speaking to him and interpreting those impressions.

The whole universe was in this tail section and Larry was practically dead. He, Walt, would be dead soon, too. A calm statement by his mind which was not a part of him, but some spectator. A news commentator! That was what his mind was.

He saw Larry sort of slack down, and knew he had died. Then there was the beginning of something too short in duration for the mind to interpret. Then blackness.

Now the universe was Pain. All things were a deep, throbbing pain.

"And darkness was on the face of the deep."

Hah! That was his mind, the news commentator, again. It had gone religious on him. There was another voice, though. What was it saying? It wasn't HIS voice now. It was soft. A woman's.

Sure! That's whose it was. Mom's!

The sound effects cleared up suddenly and the voice became clear and distinct.

"Walt, darling," it said. "Are you all right?"

"Sure, mother," Walt didn't know whether he was or not. He had a sneaking hunch he wasn't all right, but a man has to lie about things like that.

"Go back to sleep, mother. I'm all right."

Now, why did he say a thing like that? He puzzled over that for a while.

Telepathy! That was it. He had known she wasn't with him, but thousands of miles away. Sure!

The pain crept back.

He was looking at a pair of skinny, dirty-knees. The skin seemed to cover the bones without any meat to hold them apart.

"You must look up," a voice said. It was a Japanese voice, with a tone of sadistic pleasure in it.

With an effort he raised his head. The Jap was eating. It was a thick steak. Now he remembered. He was a prisoner, and he hadn't had anything to eat for SO long.

LIFE WAITED in agony. Sometimes the Jap kicked him right away. Then he would wait, knowing that the suspense was as bad as the kick.

It came. Right in the groin again. The agony was like a knife. The laugh that followed it was taunting, superior.

God! Would it go on and on forever?

At first he clamped his lips between

his teeth. Now all he could do was whimper. All he could do was cry like a baby and say monotonously, "God. God. God. God."

The Jap was shaking him and slapping his face. It must be another Jap, because the first one was still kicking him and laughing.

The shaking became more violent. A new voice began to penetrate his consciousness. It was shouting. A woman's voice.

Something familiar about it. It was Louise's voice; but who was Louise?

The answer to that question brought back all his memory. He opened his eyes and looked up at the ceiling. The lamp by the bed made a ring of shadow on the ceiling, and spread a dim light that was brighter inside the ring of shadow.

Walt lay there with his eyes open while his mind "came back".

"Well," he finally said. "It's been almost a year since I went through that the last time."

"Yes, Walt," Louise said softly. "I had begun to hope it would never come back. Maybe it won't—again."

She sighed sadly.

Walt slipped his hand under her neck and let it slide carefully until her head was cradled in his arm.

"You know," he said, "at the start of the nightmare I always know it's only a dream. I tell myself that, and then I sort of forget it. I live through the whole thing exactly the way it happened. I guess I'll never forget the way poor old Larry looked, with his jaw shot away."

With his free hand he rubbed his face thoughtfully. There were large sections of his face where there was no stubble. The army surgeons had done a good job, but they couldn't put a beard on the skin taken from

his shoulders and transplanted to the places where the untended wounds of his face had healed to horrible appearance.

"I guess I was lucky I didn't lose my own jaw," he mused.

"Snap out of it, Walt!" Louise said sharply.

"I'm out of it," he said. "Right now I'm just enjoying the realization that it's been a lot of years since that nightmare was reality, and that I've got a wonderful wife and home and three of the finest kids in the country."

"Not to mention a factory of your own with the debts on it all paid," his wife said softly.

"You don't have your dreams as often any more either, do you?" Walt asked.

"No." Louise was silent for a long time. "I can even recall all the things I saw now without being upset. They seem so far away that it's almost like I had read about them instead of experiencing them myself."

"Including how I looked the first day you saw me?" Walt asked with a chuckle.

"Don't make me remember that!" Louise said, shuddering. "You looked like a tank had rolled over your face."

"I can always know you fell in love with me because of my charm and not my looks," Walt joked. "You had a crush on me before the bandages were off."

"Oh, I took a peek now and then to make sure I was marrying a good plastic job," Louise said serenely. "I wasn't dumb enough to fall in love with just an ordinary job. The doctor assured me your face was the best one he had ever turned out, or I would never have married you. You're just a sort of souvenir that I keep around to remind me of that perfectly adorable doctor."

LOUISE sighed loudly in mock ecstasy of the memory of the doctor, then settled into the crook of Walt's arm with a smaller and natural sigh of contentment.

"One thing," Walt said, "we can rest assured that our children will never have nightmares. There will undoubtedly be more wars, but our children will never be in them. If they die because of the war it will be a clean death. They won't be dropping bombs on civilians in the name of justice, or to preserve something that they find was lost anyway when they get back."

"Well, there won't be any more wars, so let's go to sleep. It's three o'clock," Louise said firmly.

"All through history," Walt went on, "the wars have been made by leaders who could draft the people from their peaceful pursuits and send them into battle. The people were taught that this was the right of the leaders. They were propagandized into thinking that only cowards refused to get into the war. It was thought that the road to peace lay in the wills of the leaders, just as the road to war lay in them. Now we know, and there will be no turning back to the ways of the past. The road to peace lies in the will of the people—the individuals."

"Yes, reverend Birset," Louise said. "But will you be quiet and go to sleep?"

"Why Louise!" Walt exclaimed in mock surprise. "I thought it was the congregation of the preacher that went to sleep!"

"Well, this congregation is going to sleep right now," Louise said, turning over determinedly.

Walt turned out the table lamp and smiled quietly to himself in the dark. Soon Louise's breathing deepened and

became more regular. She was asleep, but Walt's mind was going back over the past twenty years—the peaceful, fruitful years.

HE HAD first met Louise in the hospital after the war, when he was undergoing plastic surgery to restore his features to human shape and to get a little flesh on his starved body.

They had found they were from the same place back home. Spokane, Washington. That had attracted them to each other. Of course they had never met before. She had gone to Louis and Clark High School, and he to North Central. She had become a nurse and he had gone into the air force.

They had lots of things to talk to each other about during the weeks he was in the hospital. One day, in some way that neither of them could ever figure out, they had realized they were in love.

He had gone directly to Spokane when released from the hospital. The back pay and other money he had coming paid for equipment to start a small machine shop. He had been a machinist before the war, and his mind had matured under the hardships of prison-camp routine.

Louise had come home a few months after he did. It was the most natural thing in the world for them to get married.

A year later Jack, their oldest boy, had been born. Almost the next day the idea had come for the first product his dream factory would manufacture. He had built a model and obtained a patent. Then he had converted his machine shop to manufacturing it.

After that it had been one thing after another, until now he owned a

large building devoted exclusively to manufacture and had agencies all over the country that handled his products.

The days had been wonderful, but the nights more often than not had been torture. Only Louise understood. He kept silent about the nightmares, so that none of his acquaintances suspected. It was Louise who awoke and comforted him when the months of awful torture and starvation, and the moments when the B29 was plunging down to destruction, were relived in every detail of their awfulness.

It was somewhere along in there that the new movement had sprung up. He hadn't known of it at first. Then he had become aware of talk about a new movement that was finding a lot of crazy people willing to join it.

To join you had to make some kind of a solemn oath to the effect that you would never fight. It was the old conscientious-objector groups springing up. Crazy. All of them. Only a crazy man could think that by refusing to fight when some monster started to gain control of the world, could the world remain peaceful.

"Sure we could keep out of war," people would say. "When another Hitler comes along, just invite him in and turn the country over to him."

The leaders of this crazy movement had said, "Sure! Turn it over to him. If you fight him at least a million people will be killed. If you don't fight, he may kill a few thousand before he finds out the country is a white elephant to him. He'll admit defeat all the quicker, and go home where he belongs."

THAT HAD seemed silly. The whole country laughed about it. Underneath, though, the press and the

government began to grow uneasy. It seemed that there were an unbelievable number of people in the country crazy enough to fall for the stuff.

After a while it became quite common for city governments to ban PLWI speakers and order them out of town. The country had been shocked when it was made known that the mayor of Portland, Oregon, was a PLWI.

The movement seemed to get a lot of money from someplace. It became common to see papers laying on the sidewalks and in the gutters with the headlines, PEACE LIES WITH THE INDIVIDUAL, staring at you.

PEACE LIES WITH THE INDIVIDUAL. PLWI. The abbreviation changed to a word. Pillwee. Pillwee and the obnoxious Conchy became synonymous insulting words.

Walt hadn't been interested until a fight started in his factory one day. One of the workers had beaten two of the others so badly that they had had to be taken to the hospital. Walt had called the worker into his office for a talk.

The fellow had come in. It was Tom Baker, who had been slated for promotion soon. Seeing who had done all the damage had been quite a shock to Walt.

"Why, Tom," he had exclaimed. "I had no idea you were the type that would do such a thing."

Tom had smiled ruefully.

"I didn't think I was either, Mr. Birset," he had said.

"How did it start?" Walt had said.

"It's been going on for a long time," Tom replied. "You see, I'm a pillwee, if you want to call them that."

His voice had been slightly resentful.

"You mean," Walt had said wonderingly, "That you are one of those

who would refuse to defend your country, but that you aren't above fighting and beating up two men who work with you?"

"The two aren't the same thing," Tom had replied.

"What way are they different?" Walt had asked, amused.

"Have you ever read anything about the PLWI?" Tom had countered.

"No. Should I?" Walt had said.

"I think you should before you start judging my actions in this matter," Tom had said boldly. "The cause of the fight was the continual ridicule by those two men for the past few weeks. It had to come sooner or later, or I had to quit my job and get out. I like my job."

Then Tom had pulled a small booklet out of his pocket. Evidently he had come prepared to do just that. Walt had taken the booklet and told Tom to come back after lunch.

Then he had read the book. The farther he read the more amazed he became. The theme, peace lies with the individual, ran through the whole thing in many different points of elaboration.

The book put forth as a solemn proclamation the statement that it is the attitude and conduct of individuals that make up mass movements, and that if the individual as an individual conducts himself according to what he believes right, then the world will have to follow along.

IT SAID that the individual may not want war, but he may permit himself to be drafted to fight a war, or raise his son to believe that he should allow himself to be forced into fighting in a war. The book went on to assert that this negative attitude was just as wrong as to teach a son to want to fight, and that in the

the long run most wars were made possible by just such a negative attitude.

The book dealt with things in a way that seemed treasonous, but which on second thought seemed right. It laid down seven principles. (1) War takes manpower. Don't be potential war fodder. (2) War takes materials. Don't make them. (3) Majority action moves. Convert everybody to peace. (4) Slavery must have the consent of the slave. Don't consent to any kind of slavery. (5) All men are equal. Don't even think yourself better or fundamentally different. (6) Support movements that advance your beliefs. (7) A weak link weakens a chain. Die if necessary for peace, but don't die for war.

Walt had read on all during his noon hour. He could see how Tom could fight and send two men to the hospital, and still be a pillwee. It wasn't a religious movement after all. The Quakers and Jehovah's Witnesses endorsed it, and several other religious groups. It had been started by somebody who didn't belong to any of that.

The main idea the book brought out was that if all people on earth refused to engage in war, the leaders who might spring up and want to fight wouldn't be able to get the manpower to carry on the fight. That made sense.

Tom had come back before he got to the end of the booklet. Walt had frowned at him and told him he would send for him when he wanted him.

With a quiet smile Tom had left the office. Walt had finished the book. At the end was a section with several sheets of application blanks for membership in PLWI. Four of them had already been torn out. The blanks were full page, to be used as applica-

tion forms, testifying belief that:

Knowing all world movements are made up of the activity of single individuals, and knowing further that the strength of any world movement will continue only as long as the effort of the individual persists, I, the undersigned do solemnly swear that

(1) Inasmuch as no war can continue for long unless manpower can be utilized and drawn upon, I will refuse to bear arms under any pretext whatever, either to invade foreign soil or to protect the sovereignty of my native country.

(2) In the event of war I will refuse to engage in any enterprise whose purpose is to carry on the war or whose purpose is to aid, financially or otherwise, any nation or group engaged in war, including my own country.

(3) Inasmuch as my individual influence is insignificant, and there must be a vast majority of people in all nations with the same resolve, I will do everything in my power to increase the membership of the World Peace Movement both in active campaigning and in financial support of the movement. In that way I can multiply my influence and power for peace many-fold.

(4) Inasmuch as life is worth living when and only when personal dignity and human rights are respected by governments and by individuals, I will refuse to submit willingly to any ordered action which in my opinion violates my personal liberty, and will never violate the right of or infringe on the personal liberty of anyone. - Furthermore, I will actively support financially, orally, by pen, and by franchise any movement whose sole aim is to end existing violations of personal rights.

(5) Inasmuch as all men are equal,

no race, nation or group being superior to any other to the extent that they may impose on the human rights of others, I will henceforth consider the terms, American, Russian, Frenchman, etc., as denoting merely place of birth, residence, or origin, and will further consider all men, regardless of race, creed, or color, as my brothers and equals in all things.

(6) Inasmuch as intolerance and injustice are in direct proportion to lack of education and free speech, I will actively support financially and personally, when feasible, any enterprise whose sole aim is to educate or distribute information; and further, believing it is the moral responsibility of enlightened people to educate the young and provide them with the educational facilities necessary to obtain full mental development, I will support any movement whose sole aim is to carry elementary education to all peoples, any movement whose sole aim is to protect the rights of all peoples to an education, and any legislation whose sole aim is to safeguard the rights of all people to equal education and freedom of expression.

(7) Realizing that many millions of people have given their lives in the past in fruitless wars, and that if wars continue many millions of people will lose their lives in the future in similar, fruitless wars, and that if war were to come now I, myself, might lose my life in futile war, or take someone's life the same way; and further realizing that if I were to break the vow I am now making to forswear war, it would weaken the cause for permanent peace, while keeping my vow unto death if necessary would strengthen the cause for peace; I solemnly resolve to submit to imprisonment, personal indignity and abuse, torture, and death, if they come,

rather than break one word of this, my solemn oath.

Walt had gone to one of the PLWI meetings with Tom. That had been two weeks after the shop fight. He had been surprised to discover that several of the men in the factory belonged to it.

The speaker had been one of the founders of the movement.

Louise had gone with him to the next meeting two weeks after that. Then they had signed the blanks themselves, placing their right hands on the Bible and reading the whole application text out loud. They had meant it, too.

That was seventeen years ago, and they still meant it. More than ever now.

CHAPTER II

"JERRY! You get down here this minute or I'll send daddy up to get you."

Mrs. Birset, trim in her red and white house dress, her hair combed up, and a fresh apron on, let the door swing shut and hurried back to the business of getting breakfast.

Mr. Birset, Jack, the nineteen-year-old son, and Helen, the seven-year-old daughter, were busily eating. Morning was the time of day when everyone was in a hurry.

It was seven thirty. Walt would walk into his office in the Birset Mfg. Co. at exactly three minutes to eight as he did every morning. Jack would stroll casually into the class room at the Miller Business College just as the eight-thirty bell rang. Helen would hurry to get to school by eight o'clock so that she would have half an hour to play on the play grounds.

Twelve-year-old Jerry was poking

as usual. He came quietly into the kitchen and squeezed in beside Helen on the breakfast nook seat.

"Good morning, Jerry," Walt said gravely.

"Mornin', dad," Jerry answered. Then he busied himself with his breakfast cereal and glass of milk.

Mrs. Birset brought four more pancakes and dumped them on the plate in the center of the table.

The radio, which had been playing cowboy music, began to give out the morning newscast. Mrs. Birset stepped over to the shelf by the refrigerator where the radio rested and turned it a little louder.

After the commercial the announcer began the newscast.

"Headlines in the news. Cave-in at the Pitman coal mines in Indiana traps hundred workers. TransPacific freight plane crashlands at Hawaii. PLWI carries fight against universal military training to supreme court. Governor Landings of New Mexico dies of heart attack.

"Early this morning a general settling of the area around the Pitman diggings in Indiana collapsed three main tunnels of the mines, trapping over a hundred miners just ten minutes before they were to go off shift. If the cave-in had delayed for just a few moments the shafts would have been vacated in the normal change of shifts. Emergency equipment was put into operation, and it is expected that the entrapped miners will be reached before the day is over. However, the emergency oxygen tanks that are now standard equipment in the mines should keep the men alive for several days.

"THE TRANSPACIFIC freight plane, *Amigo*, crashlanded on the field at Honolulu last night. None

of the two hundred tons of cargo were damaged. The crew, of course, due to the fool-proof shock seats could not had been injured if the ship had nose-dived. Every time we hear of an airplane accident we can thank our lucky stars that we got one thing from our unsuccessful attempts to go to the other planets and the moon the shock seat.

"The PLWI today will open its case against the government in its battle to end universal military training. It is, as you know, the test case of the College of the Pacific versus student Arthur Brown, who demands that he be accepted as a student without his discharge papers from the army,—a requirement in all colleges now. The PLWI has some of the best lawyers in the country, and they stand a very good chance of winning. They are going to demand that either the supreme court remove all persecution restrictions from members of the PLWI or come out and recommend that they all be arrested for treason. They claim that civil rights cannot be taken partially. They must either all be granted, or else all taken away. The prosecution claims that the Supreme Court dare not give the defendant the right to enter college without his required military training, because it would disrupt the whole country. Discriminating laws of all kinds would have to be scrapped. There is even a rumor that if the PLWI wins its case General Motors will demand that the anti-trust laws be declared unconstitutional.

"The political hopes of the Democratic party, resting in the stately figure of Governor Landings of New Mexico, were roughly shattered last night when that picturesque statesman collapsed from a heart attack in the Gold Room of the Fernandez House, a large hotel in the capital, almost

equal in splendor to our own Davenport Hotel.

"Now for the local news. The latest in the wave of robberies—"

Walt rose from the table and left the kitchen to get his coat. Louise followed him to the front door.

"Don't forget to stop at the cleaners on the way home tonight," she admonished. "If you forget, you'll have to wear the suit you have on to the meeting tonight."

"I won't. Good-bye, darling."

Walt kissed his wife hurriedly and went down the front steps.

Tom was waiting at the curb in his car as usual. He lived just three blocks up the street and always stopped for Walt.

"Mornin', Tom," Walt said as he climbed in.

"Mornin', Walt," Tom greeted in return.

They rode in silence for awhile.

"Going to the meeting tonight?"

Tom finally asked.

"Yeah," Walt said. "He's going to give us the figures on how powerful we are now. That should give some of the more timid ones a little courage to back up their convictions."

BOTH MEN chuckled.

"What do you think will be the outcome of the Supreme Court battle, Tom?" Walt asked.

"Hard to say. Whichever way it comes out, the decision will be far-reaching. It's only a test case. The decision will affect thousands of cases. There are over five thousand graduates of our PLWI colleges. Since our schools aren't accredited because they don't fulfill the requirement of the universal training legislation, they aren't authorized to issue degrees that will be accepted by other, accredited schools. If the Court favors our case our colleges will have to be accredited,

and all those graduates be granted degrees.

"Because of one little clause in the universal training law—the one that says 'one year of military training must have been completed for acceptance into any college or university', the country has become two nations. If the court favors us all that will end. If it decides against us I think there is going to be something come up. I wouldn't be surprised if we didn't try the method of withholding the school share of our taxes and paying that directly to our own schools. After all, if we are denied education we should deny that education our financial support and give it to our own schools."

"How many are we now?" Walt asked thoughtfully.

"My guess is that we number over thirty million now," Tom answered. "Just about a fifth of the population."

He turned the car into a parking lot beside the factory and parked it in a reserved space. The two men left it and went through a side entrance into the factory.

Inside everything was quiet except for the dominating voice of a speaker on the radio. The radio was turned on full blast, and the workers were huddled around it, listening silently.

"—definitely of Arabian manufacture," the speaker's voice said. "If it is not, at least it definitely came from North Africa, and could not have done so without the consent, at least, of the Mohammedan Federation. Those parts of Paris that are not destroyed are in flames. People are beginning to creep out of the city. Some of them are horribly burned, with dead flesh falling from their bones as they struggle along. Others wander blindly, their minds blank from shock."

"What's this?" Walt asked, a look of amazed unbelief on his face.

One of the workers said hastily, "Paris has just been bombed. Just an hour ago. The news was just released by the government bureau."

"The Eiffel Tower," the radio went on, "can be seen from where the commentator is broadcasting. It looks as if it had been partly melted by some gigantic blowtorch. Incidentally, the news of the disaster is coming from one of the Paris stations, from the transmitting station outside the city. The broadcast is being picked up in London and relayed to New York."

"We will transfer you now to Johnny Davis, noted news analyst, for an analysis of this unexpected development in world affairs. This is station —"

The voice of the well known commentator sounded.

"IF YOU will recall," it said, "I have several times predicted that if war ever came again it would come without warning. Though this prediction has been borne out I am not proud of the accuracy of my forecast. Over three million innocent French people lost their lives today, or will lose it after suffering in horrible agony before the day is over. It's obvious who made and fired the rocket bomb that destroyed the French capitol this morning. The French and the British are hated intensely by the Moslem world. We all underestimated their unity and ability to wage war. Now it looks as if the whole world will have to pay for our blunders in another deadly war."

The radio switched to music and someone shut it off. Everyone was talking at once as Walt and Tom left the assembly room and went into the office section.

"So it's come at last," Walt said dazedly. "War! The thing we all hoped would never come again."

"Yes," Tom said grimly. "Now we will see if our organization can stand the test of battle. There's no question which way the Supreme Court will decide now. The country will declare war before the day is gone, and the Supreme Court judges will be influenced by it. The test case which was to mean so much couldn't have been more poorly timed!"

"I'm afraid you're right, Tom," Walt said sadly. Absently he flicked the button on the office radio and took off his coat. Then he sat down at his desk to go over the orders his secretary had placed there in a neat stack.

Tom went back into the plant to oversee the day's production.

NINETEEN-year-old Jack stood by the entrance to the Crescent department store waiting for Edith, his girl friend. He whistled a tune softly while he waited.

"There she is," he thought, spying her coming toward the doors between counters inside.

Edith pushed open the doors and came out. The two fell in step together, heading for the Green Lantern, where they nearly always ate lunch together. It was already settled between them that when Jack finished business school and went to work in the office of his dad's factory they would be married.

"Isn't it awful about Paris?" Edith exclaimed.

"Yes, it is," Jack said quietly. "There are too many people in the world who think that war settles anything."

"Now all our plans will be upset," Edith said sadly. "I suppose before the week is out they will be inducing

everybody into the armed forces."

"Huh uh," Jack said quickly. "Not me, they won't."

"What do you mean?" Edith said sharply. "Surely you don't intend to stick by this pillwee stuff, now that there is actually war. It's all right to do what your father thinks best for you during peace time, but now that our country is actually threatened with invasion, and France has been attacked in such cowardly fashion, you will forget all that and do your part?"

"Look, Edith," Jack said uncomfortably. "Let's not talk about that right now. Anyway, it's MY belief too, as well as dad's."

"You mean," Edith exclaimed, "that if the Arabs invade our country you will not raise a hand to fight them off?"

"I said let's not talk about it," Jack said doggedly.

"But we've got to talk about it," Edith said. "It never occurred to me that you really meant all this stuff about not fighting if the time came when your country needed you. I'm sure you're not a coward, I know you too well. Don't you realize that if the Moslems win they'll rule the world and we'll all be slaves?"

"Let them rule the world," Jack said angrily. "I know I wouldn't want that job myself. Let them devote all their energies to train armies to occupy every country in the world. It won't do them any good. I, and millions like me, won't work or fight for them even if they torture or kill me!"

"You just don't realize what you're saying," Edith said in a mothering tone. "When the time comes I'm sure you will do the right thing. You have too much common sense to do otherwise. Let's not talk about it anymore now, Jack."

"Don't you realize that if we fight there will be not only this war, but more wars?" Jack said earnestly. "Always the world wars have been fought to end war. After each war there is wrangling for several years to make peace secure; and yet the leaders of each country are still able to call their people who don't want war and make them fight. The leaders are still able to propagandize the population into wanting to fight—for justice, for liberty, for democracy, or something else. Always both sides are right and fight for a holy cause. Only the side that wins is always right and won because God knew they were right. So they insist."

"Please, Jack," Edith said. "I don't want to discuss it."

"**A**LL RIGHT," Jack growled. "But there is no just cause for any war, not even a war of plain defense. The damage the invaders could and would do if we didn't fight back would be much less than the damage if we fought to the bitter end."

"That isn't so," Edith exclaimed indignantly. "They would take away our freedom and take all the wealth out of the country and make slaves of all of us. They would rape the women and send all the men to their own country as slave laborers."

"They would not," Jack argued. "Let's not talk about it any more."

"They would too," Edith said hotly. "I suppose you would stand idly by and let me be raped and do nothing about it!"

"Let's drop it," Jack said desperately.

"I won't drop it," Edith exclaimed hotly. "I want to know. Would you stand idly by and not fight for me?"

"I won't join the army and help kill a lot of people who don't want war," Jack said.

"You—you're impossible!" Edith said, almost in tears. "Leave me. I never want to speak to you again. You—coward!"

She speeded up and walked away with her head held high.

Jack caught up with her and slipped his hand under her elbow. She shook her arm coldly and ignored him.

"Honey," Jack said. "I would die in defense of your honor. You know that. I would fight anybody that so much as says anything against you. But before I'll join the army I'll go to jail or let them shoot me as a traitor to the cause of perpetual wars. The only way to end war for good is to fight for the basic principle of peace which is for the individual to refuse to be led into war against people he doesn't know, and would like if he did know them."

"Leave me alone," Edith said desperately. "When there is an armed Arab at every corner, and I am a bruised hulk of a woman with a dozen Arab children and all kinds of diseases like the Japs spread in the last war, you'll come to your senses; but it will be too late then."

Edith ran up the steps to the entrance of the Green Lantern. Jack followed her in and across the floor to the table for two they always occupied.

He sat down across from her without speaking.

For a few moments she refused to look at him. She sniffled loudly a couple of times as she looked at the menu. Finally she laid it down and leaned forward, pleadingly.

"Oh, Jack," she said earnestly. "Join the army and forget all this talk about the peace of the world depending on you. It isn't worth it to be branded as a coward. I couldn't ever live with a man that's branded as a coward."

JACK'S LIP curled. He spoke biting-ly.

"So that's it," he said. "You don't want me to die—you hope; but you would have me go to war and fight a lot of people I don't even know, rather than have your friends call your future husband a coward. You're AFRAID of what people might say."

"And you say I'm a coward," he snorted.

"I didn't say any such thing," Edith said tearfully. "I think a man is brave to stand up for what he thinks right. But oh, Jack, can't you see how wrong you are? The ONLY way we can preserve peace is to fight down the barbarians as they rise up, just as the only way to keep law and order is to have policemen arrest the criminals and punish them."

"What do you mean by a barbarian?" Jack asked. "Do you think that just because an Arab doesn't have the same religion we do, and lives a long ways away, he is a barbarian? Actually he is just as smart as we are. At one time not too long ago WE were the barbarians and the cradle of civilization was in Arabia. Do you think that having a radio in every room and an electric refrigerator in the kitchen keeps us from being barbarians, and that all those who don't have them are barbarians? If you do, then the French are barbarians, too, because most of them don't even have electricity yet!"

"Oh, I don't know what to think," Edith moaned. "All I can see is my father demanding that I break our engagement because you are a pillwee—and the sneers of our friends who think you are a coward, and will be sure of it if you don't join the army with the rest."

"There's a meeting of the PLWI tonight, Edith. Why don't you come to it with me?" Jack suggested.

The waitress laid their lunches on the table, then left.

"What good would that do?" Edith said hopelessly. "It would only make things worse. Then my friends would be calling ME a pillwee."

"Maybe you would meet a lot of your friends there," Jack said softly. "How do you know that no one you know except me isn't a member of PLWI?"

"Well, you just NEVER hear of any one you know belonging," Edith said, but there was a light of curiosity in her eyes.

Jack began eating with a feeling that maybe Edith might go with him.

CHAPTER III

"DID YOU get your suit at the cleaners?" Mrs. Birset shouted from the front porch at her husband.

He had just climbed out of Tom's car and was bent over, speaking to Tom. He turned.

"Yes, darling," he said. "See you tonight at the meeting, Tom."

"Right," Tom grinned. As he pulled away from the curb Walt went up the walk to the house.

"How's everything been today, Louise?" he asked, kissing her absent-ly.

"Not very good," she frowned.

Walt put his arm possessively around Louise's slim waist and opened the door.

"What's the matter?" he asked as they went in.

"The bombing of Paris upset me quite a bit. I wish you had been home then. We saw so much war that I could see it all too vividly for comfort."

"Yes, I know," Walt said softly.

"Then Mrs. Samson called up," Louise sighed disgustedly. "She said

that as chairman of the women's club at the church she was calling all the wives of PLWI and requesting that out of consideration for the feelings of the rest of the members they stay home from the next meeting of the sewing circle. That's next Thursday. Her voice just quivered with righteousness as she said that, and I could almost see the Holy Grail held close to her flat, manlike breast."

"Of course you're going anyway, aren't you?" Walt said, amused.

"After she called I waited for her to have time to contact Emma and Mary, then I called them myself. We talked back and forth about it and finally decided we would go. If it causes a scene we might as well have the scene rather than lurk in the shadows so as not to hurt the feelings of some prude."

Jerry appeared in the doorway, one eye enlarged and purple.

"Hello dad," he said, grinning proudly.

"Hello! What have we here?" Walt asked.

"That's another thing," Louise said. "Jerry got in a fight at school today. I can't blame him, really. He was defending sister from a lot of stupid idiots."

A loud, peremptory knock sounded on the front door.

"Wonder who that can be!" Walt muttered, going back to the door. When he opened it a large muscular man was revealed, standing with legs spread and fists clenched. A fierce scowl was on his face.

WHEN YOUNG Jerry saw who it was he gulped and slipped quickly out of sight.

"Hello, George," Walt said, ignoring the man's pugnacious appearance.

"Come on in."

"Look here Mr. Birset," Mr. Grant

the father of the boy Jerry had fought with that morning, said. "I have always let you alone to your beliefs. But you are going too far when you tell your son that I am a coward for believing that a man should help defend his country."

"I? Tell my son that you are a coward? Oh, no. Where did you get such an idea as that?" Walt looked around to where Jerry had been, but he couldn't be seen now.

"My boy told me," George Grant said. He stepped to one side, revealing his son, who also wore a black eye and in addition had a swollen nose and a bruised spot on his cheek.

"He did," the boy said shrilly, afraid of Mr. Birset, but courageous because of the presence of his father. "He told me that you said my dad was a coward because he was afraid to be a pillwee."

"Oh, Jerry!" Walt said loudly. "Come in here!"

The kitchen door opened slowly, and Jerry, white-faced but calm, stepped through.

"Yes, Dad," he said when the door closed in back of him.

"Did you tell this boy that I said his father was a coward?"

"No, sir," Jerry said firmly.

"He's a liar," the Grant boy said boldly.

Walt turned angrily.

"My boy is not a liar," he said, looking Mr. Grant in the eye. "I'll thank you to keep a civil tongue in your boy's head."

"Are you implying that my boy is a liar?" Mr. Grant said belligerently.

"If you want to put it that way," Walt said coldly.

Louise stood breathless, one hand to her mouth as if holding in a scream. Her eyes were wide as she looked at her husband and Mr. Grant.

"Then you are backing down on the statement you made behind my back and now you say I am not a coward," Mr. Grant said, sneering.

"I never made such a statement," Walt said calmly. "I am quite sure you aren't a physical coward. Moral cowardice is another matter. Either you think that world wars are fine things, or you do not think so. Are you afraid to say which you think?"

"Certainly not," Mr. Grant said indignantly. "I think war is terrible, but I don't think we should crawl in a hole and hide when one comes along."

"You are in favor of war then?" Walt asked.

"I'm in favor of wiping out any people barbarous enough to drop an atom bomb on Paris," Mr. Grant said loudly.

"Are you in favor of wiping out the United States?" Walt asked. "We dropped two atom bombs on Japan years ago."

"Yes," Mr. Grant said. "But we were at war with them. They were brutal barbarians. You yourself suffered at their hands."

"Then you are in favor of our dropping a few atom bombs on Japan right now and wiping out the Japanese because they are barbarians?" Walt went on.

"If they attack us," Mr. Grant said doggedly. "Look here, Mr. Birset. I didn't come over here to argue politics with you. You called me a coward and you'd better back up those words or eat them."

"But I am backing them up," Walt said with an affectation of mild surprise. "There is no question of your physical courage. If there were, the only way to settle that would be in a fist fight, such as your and my son had. The question is whether you have moral courage to stick to your true

beliefs or not. You don't believe in war any more than I do, and if you know anything about history at all you have to admit that war never settled anything for very long. You would be a pillwee yourself if you had half the moral courage you should have."

THERE WERE three dark police sedans parked directly in front of the auditorium, with the uniforms of several policemen distributed through the crowds in front.

Tom whistled in amazement as he drove slowly past, looking for a parking place. He found one a block and a half away.

The Tom Bakers and the Walt Birsets piled out and moved toward the auditorium warily, not knowing what to expect.

They met with no difficulty, although there were several dozen people whom the police were watching carefully. Probably some rowdy element that had thought the pilwees fair game for insulting remarks, now that war was stalking the world again.

Tom eyed the crowds moving through the entrance to the auditorium with satisfaction.

"Looks like we'll have a record crowd tonight, Walt," he said.

A young man stepped up and asked, "Where's Jack, Mr. Birset?"

"He'll be along," Walt said. "He went to pick up Edith in our car. She's coming tonight."

The young man stepped back to wait for Jack. The Birsets and the Bakers joined the slowly moving line and went into the building.

Inside the huge auditorium better than three fourths of the downstairs section was already filled. There were policemen in here, too, standing in the back with their billy clubs swinging idly from gloved hands.

On the platform a young man was

setting up the loudspeaker system. A dozen chairs were lined with mathematical exactness across the center of the stage, and a sturdy but old fashioned library table was in the front of them. A stout woman was taking roses out of a long box and arranging them in a large blue vase.

A general hum of conversation lay over the gathering audience like a smoke screen. Only the impersonal expressions of the police officers gave any hint that this meeting was being held under any different circumstances from the others in the past.

"Look at the press down there," Tom whispered excitedly to Walt.

The whole front row was filled with reporters and photographers.

"Looks like they expect trouble and a chance to get some news," Walt said. "Hope they are disappointed."

MRS. BIRSET and Mrs. Baker were busy herding their offspring ahead of them into a row of empty seats. Finally they were all in satisfactorily, and Tom and Walt sat down in the seats next to the aisle.

"Look, Walt," Louise said under her breath. "There's Mr. Grant over there."

"So he did come," Walt muttered in amazement.

Jack and Edith stopped. Walt and Tom stood up to let them slide in. They settled next to the two women, making the children slide over two seats further.

"Is Mrs. Grant with him?" Louise asked. "I can't see over there very well unless I stand up."

"I believe she is," Walt said.

Several men and women were going up the steps at the side of the platform now and seating themselves in the row of chairs. These were the local officers and the speakers of the eve-

ning.

They sat down and waited patiently while people kept coming into the auditorium. Once when the outer doors opened sounds of shouting came in from the outside. Everyone looked around curiously and the policemen shifted uneasily, but nothing further developed and the shouting lasted only a moment.

After what seemed an eternity of waiting the local chairman stood up and walked idly to the table. He stood there sliding the microphone stand up and down to fit it to his height. His eyes roved over the audience.

"What time is it Walt?" Louise whispered.

Walt glanced at his watch.

"Ten after eight," he whispered. "A little late on account of the crowd."

A man in a white shirt and an unbuttoned vest hopped lightly to the platform and took a photoflash of the audience, then dropped back into the press row again.

A loud roar of the chairman clearing his throat issued from the loudspeakers. The technician ran up the stage steps and bent over the amplifier, adjusting it.

The chairman cleared his throat several times until it didn't sound too loud, then he began talking.

"I'm glad to see so many people turning out tonight," he said. "The presence of the police does not necessarily mean they endorse our product."

A quiet wave of laughter interrupted him for a moment.

"But I am sure they are with us in a desire to preserve peace. In this auditorium, at least," he finished the sentence. "We all know of the treacherous blow against the French people early this morning, and we are as sad about it as any of the more militant members of society. Perhaps more so,

because we, as a group, feel more keenly desirous of seeing that peace remains in the world than any other group in existence.

"Many of us have experienced first hand the horribleness of total war, where men become beasts and learn to get pleasure out of torturing their fellow human beings. In fact, the backbone of our organization is war veterans who have seen those things and been in them,—and who want no more of them, for themselves or for their children and children's children.

"In the last war people who refused to join in the battle because of their beliefs were classed as conscientious objectors, or conchies, and were sent to prison or to camps where they were subjected to indignities and for the most part branded as cowards.

"ALL OF these conchies based their stand on religious beliefs. The law recognized them and honored their objections, but the vast majority of the public branded the conchies as cowards. They didn't see how anyone could refuse to join in crushing that horrible threat embodied in the axis nations unless he were a coward at heart. I couldn't myself. I was in the war and got roughed up a bit, too.

"Since then the principle involved in what they call objecting conscientiously to taking part in a war has been divorced from all religious beliefs and made a faith in itself in which Catholics, Quakers, Jehovah's Witnesses, and even atheists can find common ground. The abhorrence of war is not peculiar to one faith or one creed, but is almost a universal feeling among civilized people.

"It is universal, but has to compete with patriotism and ignorance, and worst of all, tradition, which leads to wars inevitably.

"I see so many new faces in the audience tonight that I think it would be a good idea if our speaker took a few extra minutes to enlarge on his speech as he makes it, and point out a few of the things the rest of us have heard so many times that they have become a part of us.

"Our speaker is most peculiarly welcome at this particular time, because he is one of the founders of our movement. He has been in the thick of it since the beginning. It is largely through his indefatigable efforts that our membership has grown so rapidly. He is well known as a brilliant speaker, having served in the United States Senate for three terms before giving up political life to devote his energies to what he considered of supreme importance to mankind; the promotion of permanent peace.

"You have heard him over the radio as he debated against many outstanding nationalists and fought them to a standstill. You have heard him in this auditorium three times in the past. The first time was in 1948, I believe, at almost the very beginning of our movement. He came again in 1954 and the last time in 1959, five years ago.

"He is an old man, now. Eighty-two, I believe. That right?" The chairman turned to look at the statey white-haired man sitting behind him. This man nodded and smiled.

"Eighty-two years old. I think he carries his years quite well. He and I and some others were out at the Manito Golf Course this afternoon, and he went the course in just three over par—a lot better than I did myself!"

Again there was a wave of quiet laughter. The chairman smiled his thanks and held up his hand for silence.

"To most of you he needs no intro-

duction whether you have ever been in this hall before or not. I feel it is a very great honor—to present Senator Blank. I thank you."

The last was lost in the roar of clapping hands as Senator Blank stood up and walked calmly to a place beside the table. He stood there patiently while the clapping and cheering continued. Finally he held up both hands. The noise died down.

"**F**RRIENDS and coworkers for peace," he began. The silence was absolute, so that the faint echoes of the speaker's voice could be heard. "Each time I appear before an audience for the cause of permanent peace in the world I feel the weight of a responsibility almost too great for any man to bear. I feel,—in fact I know, that there are some present, listening to my words, who are not convinced or are in ignorance of the principals for which we stand. Some of these are present for the first time. I feel that if I choose the wrong words or fail in some way to say the things that I should, someone may go away unconvinced whom I could have brought into the fold, and should have brought into the fold. In one of those pamphlets out by the exit there is a statement that I have been responsible for the joining of a fantastic number of members. Something like two million or so. I think that perhaps most of them would have joined anyway. Whether they would have or not, that figure always sobers me and makes me wonder.

"I wonder how many people who have listened to me would have joined if I had spoken better or made my speech clearer. I wonder if perhaps that figure may not run into several million? And when I wonder I realize that although you applaud me as a

great champion of peace, perhaps through my lack of ability I have been just the opposite, and the numbers who might have joined with us but didn't because of me were the numbers that would keep this country safe from war.

"There are a hundred and eighty-seven million people in the United States. Of those, sixty-three million seven hundred and forty thousand odd people have taken the solemn vow to not take part in any war of any kind, either directly or indirectly! Those are the latest official figures on our membership."

Applause began suddenly and made a din in which it was impossible to hear anything. For ten minutes it continued in spite of the speaker's attempts to stop it. Then it ended from sheer exhaustion.

"Of those sixty-three or four million people over twenty-five million are of military age," he went on at last. "Two many for the government to ignore or to put in concentration camps. We have half the available manpower of the United States on our side. We have a third of the nation's wealth and productive power in our hands, owned by our members and manned for the most part by our members, although we have held strictly to the letter of the fifth article of the covenant and not discriminated against anyone."

"SIXTY-THREE percent of the ordained ministers in this country are with us, in fact, and many of the others favor us from the pulpit. Ninety percent of the small-town newspapers and ten percent of the big town papers are actively for us. That isn't very many big newspapers, but we all know where their interests lie and who dictates them. We don't blame

them in the least. They must survive as well as everybody else.

"The point I wish to bring out and to prove to you tonight is that this country cannot go to war. It can go to war, of course. Atom bombs don't take much of a personnel to be brought into play. Even Mexico or Central America could be a serious threat to any nation through the instrument of atomic bombs in the hands of unprincipled leaders. But the United States can't bring into play the manpower and manufacture the equipment necessary to follow up such an offensive.

"Does that, then, mean that we as a group are hamstringing our native land so that some aggressor can land on our shores and make us slaves?"

Several thousand voices shouted NO almost in unison. Senator Blank nodded his head grimly.

"You're right. They can land. Yes. They can overrun the country so long as they do not touch anything or harm anybody, without losing a single man, so far as we are concerned."

He smiled grimly and looked over the audience.

"I see not a few black eyes in the audience among the younger members. That should be answer enough to those who hold us in contempt. In times past a conqueror would have made slaves of us all—after he had defeated us in the field of battle. Today he need not fear that we will force a field of battle, nor accept one of his choosing. As individuals we will not fight under any pretense, but also we will not accept slavery or domination. We will not accept it from our own government, and certainly we will not tolerate or accept it from anyone else.

"We are in the midst of the most crucial period in history. During this time we will get a chance to prove our

beliefs to the world. It is fairly certain that our government will declare war on the Moslem Federation before another day has passed! It is quite certain that Europe will be overrun by the Moslems and that they will look toward our shores, if for no other reason than to eliminate a nuisance.

"Listen to a few more facts now. In Europe we have almost two hundred million members. It is a sad fact that there are one million fewer members in Europe since the bombing of Paris, since most of our French members were residents of Paris; but there are two hundred million people in Europe who will not tolerate domination by the invading hordes from the middle east. The Moslems will get a taste of pillwees right from the start that they will not like."

The audience laughed loudly.

"In the Moslem States themselves the war mongers will, and probably are finding difficulties. We have seventy-two million members there.

"Our total membership in the whole world is around five hundred million! Think of that! Those of you here tonight who aren't members may scoff and say that a lot of these would weaken if a little pressure were applied to them. I agree that there will be some who would weaken. I say to you now that if the human race is so constituted that this movement fails during this crisis—that you, and you, and you out in the audience, and your counterparts throughout the world are so morally weak that you will accept war and its brutality to avoid a little personal discomfort or to preserve your individual lives a little longer so that they can be snuffed out on the field of battle—then I wash my hands of you and I will regret that I am a member of the human race!"

THE SENATOR'S whole frame shook with emotion as he said this. When he stopped there was absolute silence. He continued almost in a whisper.

"If you fail you will not only be taking part in, and consenting to the murder of millions *now* in a fruitless war that can very well end life on this planet; you will also be condemning to death untold billions in the future; just as your ancestors who went out and subdued the Earth to make it safe for Christianity, safe for Judaism, safe for Islam, safe for the expansion of huge corporations, safe from the Indians, and to save the souls of savages who were in many cases more civilized than those who fought to save them—condemned your friends and parents in the last war to death and suffering.

"I'm an old man. I didn't start this movement whose basic creed is contained in the simple statement that peace lies with the individual. It was already many thousand strong when I signed that solemn vow and creed. But I saw it reach its first million, and helped it do it! I pray to my Father above that I be permitted to live to see its strength end this war and bring peace to the Earth for all the future."

THE SENATOR'S hands shook as he poured himself a glass of water and drank it. Then he began again in a calmer voice.

"In the days ahead of us many of you will be sent to jail. Some of you may be shot in an attempt by the government to force us to recant—when and if the enemy lie off shore and send their boats and landing barges onto our beaches. Those of you who do die can have the small satisfaction of knowing that your names will be

placed on our honor roll along with those who gave their lives to spread the doctrine of peace into countries where it meant death to be caught and discovery was eventually certain."

THE SENATOR stood silent, a crooked smile on his face. The audience waited, not knowing whether he had yet finished or not. For a full minute he stood looking out over the audience. Then he turned and walked back to his seat.

Even then there was a hush that remained for several seconds longer. Then pandemonium broke loose. Clapping and cheers and hat-tossing made the rafters and the foundations shake. Instantaneous flashes from flash bulbs in the hands of frantic photographers added to the scene.

In the midst of this a small wedge of policemen pushed their way slowly down the aisle to the platform and marched up the steps.

It was not until the crowds saw the handcuffs placed on the wrists of the aged senator that they realized anything was amiss.

A sullen roar rose out of the momentary hush. Then a policeman held up his hand as a signal that he wanted to speak.

"Ladies and gentlemen," he began rather self-consciously. "When we came out here this evening we were given specific orders on what to do in case a certain thing took place. Our personal feelings have nothing to do with this. We are just doing our job and following orders. The thing we have to do, quoting our orders in specific detail, is to place handcuffs on Senator Blank and take him to the county jail where he will await the disposal of the court.

"The thing that had to happen before we were to do this was that the Congress which has been in special session since early this morning must

declare the country in a state of war. As of twenty minutes ago we are at war against the Moslem Federation!"

The audience began to cheer. The officer looked puzzled because he had expected a different reaction to his words. Then he turned and saw the reason for the cheering.

Senator Blank was standing erect, his white hair shining like a halo around his head. On his face was a triumphant grin as he held his handcuffed wrists up in plain view for all to see. In his eyes was a light of fierce joy.

A photographer took several pictures of him standing there. Unnoticed, he slipped one of the exposed plates to an official of the local PLWI chapter. The others would be turned over to his paper to be censored by the government bureau which automatically took full power over the press, radio, and public speaking as censor with the declaration of war.

Before many days would pass, that picture would be printed on millions of circulars in thousands of secret printing plants to carpet the nation's streets.

One of the policemen motioned for Senator Blank to start walking. He did so, walking slowly, his tall stately figure dominating the scene. The policemen followed him respectfully as he descended from the platform and made his way up the center aisle to the rear.

Walt caught his eye as he passed him. Unobtrusively Walt formed a circle with the thumb and index finger of his right hand, holding the other three fingers out straight. The senator saw it and smiled....

CHAPTER IV

"JERRY! You get down here this minute." Mrs. Birset let the door

swing shut and returned to her task of getting her "boys", as she always thought of her family, off to their various occupations.

"Fry me an extra egg this morning, Mother," Walt said. "I'll be very busy today converting to war production."

"War production, Dad?" Jack asked in amazement. "Are you—of course not." He grinned knowingly. "What's the catch?"

"Christmas toys and a portable grinder for the home so that the housewife can buy whole grain and make her own flour and breakfast cereals," Walt replied.

"What kind of Christmas toys?" seven-year-old Helen asked eagerly.

"Well," Walt said, "it will depend on what materials we have in the stock pile. We have lots of sheet metal. We can make little wagons, tricycles, doll beds, and all sorts of things from that."

"What are you supposed to make under the war emergency?" Jack interrupted.

"The same things I've been making, only with certain alterations so they fit into government specifications on certain government designs."

"What will you do if a government supervisor comes to the factory this morning to take over?"

"If that happens," Walt replied, "I will turn the plant over to him. He'll have to get practically a whole new crew because only three of my men aren't pillwees. Then I'll come home and take a long-needed vacation."

"Oh, boy!" Helen exclaimed. "Can we go see the ocean?"

"Hey, youngster," Walt said laughingly. "Not so fast there. You have to go to school, you know."

"But I don't want to go to school," Helen objected. "I don't like being made fun of and pushed."

"Maybe it would be better if we kept Helen and Jerry home from school for a few days until things settle a little," Mrs. Birset said worriedly.

"Time for the news, Mom," Jack said.

"I don't want to turn it on this morning," Louise said firmly. "I don't want to hear the details of the war."

"Aw, please, Mom," Jack pleaded.

"Well, all right," she gave in. In a moment the radio had warmed up and the news analyst's voice came in.

"Developments in the news," it began. "The war opened yesterday morning with the destruction of Paris. At the same time at least five atom bombs were dropped on Rome. So complete was the destruction of Rome and Vatican City that it was not until several hours later that news of the disaster reached this country.

"Simultaneously land troops from Arabia and Egypt took the Dardanelles, which had been weakly manned by the French for many years, and are now spreading in a series of pincer-like thrusts into Europe proper."

WHEN THEY strode into the factory things looked no different from usual. More news was coming in over the shop radio. Walt and Tom nodded in friendly greeting to the men and passed through to the office.

There, sitting with one leg on a desk, was a slight man in army officer's uniform. He smiled and stood up as they came in. Then he saluted smartly.

"Lt. Tomkins, sir," he introduced himself. "Assigned to your factory to expedite changeover and see that no delay comes up because of red tape. I have orders to act in an advisory capacity only, unless some trouble comes up. Then I am to take charge

only of that phase which is delaying conversion."

Walt looked quietly at Tom. Tom turned without a word and went back into the factory. Then Walt walked heavily to his desk and sat down, his hat and coat still on.

"I'm sorry," he said quietly. "I have no intention of converting to war production."

"What!" Lt. Tomkins exclaimed. "Why, man, you don't realize what you are saying. This is war, and such conduct will land you in prison or get you shot!"

"I am a member of PLWI, Lt. Tomkins," Walt said sadly. "If that means anything to you you will realize that I am fully aware of what I am saying. If I am to be shot, so be it; but I think before the day is over the military will find that they have to jail or shoot more people than they will have time to."

"But it won't do you any good," the lieutenant argued. "We'll just take over your factory and operate it ourselves. You are sacrificing yourself for nothing."

"How will you operate it?" Walt asked with a wry smile. "My men are all PLWI's, too. Most of them are, anyway. You're welcome to the factory. I can't stop you from taking it. In fact I wouldn't if I could. But there won't be any men to run it."

"We have a list of your personnel," Lt. Tomkins replied. "If they won't work as civilians we'll draft them. Then they will have to work or get shot."

"I don't think you CAN draft them," Walt pointed out. "They have all been pillwees for many years, if not from birth. They, and millions like them, are exempt from draft under law, and will refuse to be drafted if you override the law or set it aside legally. Not only that, the best law-

yers in the country will defend them, and probably in courts presided over by PLWI jurists."

"May I use your phone?" Lt. Tomkins asked anxiously.

"Go ahead," Walt said, rising. "I'll be out in the plant in case you want me. I won't go away."

The Lieutenant hesitated, then picked up the phone. Walt walked out of the room.

The men were waiting, their hats and coats on and their lunch buckets under their arms. They looked at Walt anxiously as he came in.

"Go on home and say good-bye to your wives," Walt said heavily. "You might not get that chance if you stay here."

"I said good-bye to mine when I left this morning," one of the men said.

"Go home anyway," Walt answered, "Stay there. It will take a few man hours of military time to round you up. If you stay here you are aiding in the conduct of the war by saving the army that time."

THE MEN chuckled.

Walt and Tom stood side by side and watched the men file out of the building. Only the three non-pillwees stayed.

Walt wandered around, stopping in front of the various machines and looking at them darkly. Tom watched him.

"I'm just saying good-bye to my baby," Walt said after awhile. "No telling if I'll ever see it again."

"It's my baby too," Tom said.

"When I was in that Jap prison camp," Walt went on, "I used to dream of this factory. I used to lie in the filth of the camp and close my eyes and pretend I wasn't there. I'd buy machinery and a big building, and figure out production problems and

invent things to manufacture. Some-side. Soldiers came into the plant at times I lost myself so deeply in my dream that for days I wouldn't really know where I actually was. I guess starvation had a little to do with that, but anyway my dreams kept me alive when I should have died otherwise." He chuckled mirthlessly.

"The Jap guards couldn't understand how I could go through torture for their sadistic pleasure, then lie shivering all night out under the stars with practically no protection from the morning dew and the mud and slime in which I lay, too weak to rise; and then smile cheerfully the next morning, when they brought me my daily ration of rotting vegetables. They thought I was crazy. Maybe I was. But when I got back home I started out to make the dream I had lived for come true."

He looked around him possessively.

"This is it," he said proudly.

The door burst open and Louise came running in. She paused. Then, spying Walt, came running toward him, hands outstretched.

"Thank God," she sobbed. "They haven't taken you yet. One of the men stopped on his way home and told me."

She fell into Walt's arms and sobbed quietly, clinging to him.

"There now, Mother," Walt said comfortingly. "They won't do anything to me. There aren't enough jails and guard houses in the county to arrest everybody who is doing what I am."

"I know," Louise sobbed. "But they haven't had time to fill them yet and they will try to make a few examples to scare the rest into falling into line. I'm afraid they will make an example of you."

As if in answer to her fears, the moan of a police siren sounded out-

ter that single mournful sound. They carried rifles strung over their shoulders. Their faces were expressionless, and so far as could be noticed they seemed not even aware of the existence of the men and the woman in the shop.

Then three lieutenants strode briskly in and Lt. Tomkins left the office to meet them. The four conferred together in low voices, looking over at Walt from time to time.

Finally two of them turned and marched toward the side exit. Lt. Tomkins looked at Walt and motioned him to follow them. Walt lifted his eyebrows slightly and remained where he was.

The lieutenant frowned and cleared his throat nervously.

"You are to go with these men," he finally said.

"Is Spokane under martial law?" Walt asked innocently.

"No," Lt. Tomkins said.

"Then I believe you have no authority to arrest me," Walt insisted calmly.

"We aren't arresting you," the lieutenant said. "We merely want you to go with these men to the central office and explain your stand."

"Then I am free to go home after that?" Walt asked.

"I presume so," the lieutenant replied.

"You guarantee it?" Walt persisted.

"I can't guarantee anything my superior officers may do or not do," the lieutenant hedged.

"Then I refuse to go until you show me a warrant for my arrest," Walt said. "While I think of it, if you have no written authority to invade my property I must ask all of you to get out."

"Don't anger them," Louise whispered.

Walt shrugged his shoulders.

THE TWO officers returned and the four went into another huddle. Finally, ignoring Walt as if he weren't there, they ordered their men to go outside and not let anyone leave the premises. Then they went out and drove off.

One of the workmen who had remained grinned at Walt after the last soldier had left.

"Well," he said, "we won't starve today. I imagine all of us together have enough lunch to go around."

"Yeah," another spoke up. "And we have some coffee and a hot plate. We can have coffee for a week, anyway, before we start starving."

"Are you men weakening in your stand against the PLWI?" Walt asked, amazed at their words.

"No," the man who had first spoken said. "We still think you're all wet. We've got to beat the Arabs, but we admire your spunk." He looked at the other two and they grinned their approval of his words.

At eleven o'clock Louise left after some argument with the soldier guards. The afternoon wore on with no return of the officers. The five men in the shop whiled away the time listening to news reports, playing cribbage and gin rummy, and just talking.

There was no news of the fate of Senator Blank, nor was there any hint of the trouble the army must be running into trouble in their efforts to put the country on a war footing.

The Moslem troops had reached France in three points and were going on full speed after only momentary setbacks. No direct mention of the trouble the French army must have experienced in getting men into the field was made. The underlying causes of the ease with which the Moslems crossed middle Europe were obvious

to anyone who had listened to the senator's speech the night before.

To those who didn't know the strength and membership of PLWI the superficial facts were unbelievable. The apparent disdain and carelessness with which the Moslems ignored most of the country through which they went, and the equal calmness and equanimity of the inhabitants, were seeming figments of fantasia.

Even the news announcer seemed puzzled.

On the three o'clock news the first hint of what might be in store for the United States came out. Survey planes had sighted over eight hundred ships headed toward America from the Mediterranean. The enemy ships traveled in a formation in which each ship never went closer than twenty miles to any other. This was to prevent atom bombs from being effective against more than one ship at a time. Since an atom bomb cost much more than a ship this definitely prevented the US from using them to tear down the fleet.

SINCE IT would take at least three days for the fleet to cross the Atlantic it was certain that the US would give them everything in the book. The announcer seemed to think the Moslems quite stupid to send such a fleet.

Another announcer hinted at a secret defense weapon the US was using to prevent atom bombs from dropping on American cities. He speculated that it might be a radar-directed gun which would hit and explode rocket bombs as they neared their targets. With radar in its perfected state, he pointed out, a rocket could be followed from the time it came over the horizon, and even before that if all the stations were coordinated electrically. Its path could be plotted and a projectile sent up to meet it, even though it travelled at supersonic speeds.

He further hinted that the Moslem's boldness in sending a wide-open fleet indicated the strong probability that they might have such a defense scheme in operation in the fleet.

Altogether, the huge fleet of enemy ships moving slowly across the broad Atlantic was an unnerving thing.

"Why don't they send rockets?" people were asking. "Why don't they send invasion troops by plane? Why don't they try the sensible things, futile though they might be? Then the man in the street could understand that it was a good try, even when it failed. Why such a thing as a slow, wide-open target of ships in the ocean? Unless—! And the answers to that question were many and varied. They all boiled down to one outstanding opinion. Suicide wasn't what motivated the starting of that fleet. The Moslems expected the fleet to get through in spite of all of America's super science and weapons. They were confident that they could fend off every conceivable kind of attack for at least three whole days, and succeed in landing the troops on those ships when they reached our shores!

THE THREE-THIRTY news brought the first signs that the government was aware of the passive resistance of the PLWI. It came through Johnny Davis, who was now chief of the government department of news, through which all news now had to be released or okayed.

"In a series of lightning arrests during the past twenty-four hours," he began, "the Army and the F.B.I. working together have arrested the leaders of perhaps the greatest subversive organization in history. Through documents uncovered in a surprise raid on the Chicago headquarters of this organization it has been definitely established that the founders and lead-

ers of this group are financed and masterminded by the Moslems themselves.

"For the past eighteen years this group of paid fifth columnists has carried on a campaign to render this country impotent in the face of attack, by convincing literally millions that war cannot come if the PEOPLE themselves refuse to fight. So strong has this organization become, in a country which gives EVERY man the right to speak, that today we are faced with the actual possibility that they may have succeeded!

"Victims or dupes of this subtle propaganda have among their numbers factory owners and whole industries. In some quarters our effort to convert to meet the national and international emergency now facing us has bogged down almost completely. We find people so duped by the propaganda of peace at any cost that they stand willing and ready to die or face long prison terms rather than consent to even the manufacture of the things necessary to keep the enemy from swarming through our streets.

"The leaders of this movement are under arrest and their national headquarters has been seized. Funds credited to this organization have been frozen by the government and a committee is now at work tracking down the sources of revenue that enabled this group to spread to a large portion of our population.

"These records show millions of dollars as having been received from the Arabian embassy in this country, and other millions as having passed through the German and Italian countries on its way here.

"It is hoped that those of you who have fallen victim to this propaganda will now realize its purpose and aim is to so cripple the United States that we will fall prey to the Moslem hordes

when they reach our shores.

"Many of you have openly defied your government, closing down your factories and walking off your jobs. You could be punished severely for this, but your government, realizing the full extent of the movement, and the extreme duplicity of its leaders who have instilled these half truths and subtly distorted principles in the minds of so many people, has suspended judgement on all except those directly responsible and criminally guilty of treason."

THE BROADCAST ended. Walt's face had grown slowly red as he listened to the broadcast. At the end it was almost a bright red. Tom himself was a little flushed.

The three workers looked at them pityingly.

"So it was a long range fifth column movement!" one of them exclaimed wonderingly. "To think that I was almost on the point of falling for it myself!"

"It isn't!" Tom said fiercely. "That's the government line of attack to try to make some of us give in. That about the Moslems financing it is nothing but lies. We lost nearly five thousand men in our campaign to get membership in the Moslem countries."

"Just more fifth-column lies put out to dupe you some more," another workman said.

A knock sounded at the shop door, followed by the entrance of one of the soldiers. He saluted mechanically.

"We just received orders," he said, "to go back to base. You are free to do as you please. I was instructed to tell you that you will be expected to go ahead with conversion according to plan, and that when you are ready to do so you are to contact the Spokane office of the War Production Board."

He saluted again and turned wood-

enly, to leave as he had entered. Shortly after, the sounds of motor trucks could be heard as the soldiers drove away.

Walt stood quietly, a faraway look of admiration in his eyes. Suddenly he turned to Tom.

"You know, Tom," he said, "that is the most skillful counterattack I have ever heard of. I don't doubt that it will convince a million or so pillwees. If it is carried on as skillfully as it has begun it will even make me doubt."

"I wonder who the genius was who dreamed it up?" remarked Tom.

"I doubt if anybody dreamed it up," Walt replied. "They probably did raid national headquarters. They probably did find documents that could be construed as evidencing foreign support. It's been common knowledge that Germany has contributed more than even the members in the United States in a financial way. She's the only country that has become completely pillwee from the rulers down to the garbage man, and for the past five years since—has been Premier I rather think that all national headquarters had to do was let him know they needed so many millions and we got it.

"Evidence of financial support from a foreign nation can be twisted by a good propagandist so that it seems to be fifth-column backing, and anything at all can be made to look like fifth-column activity if it goes against law already in effect."

"How do you mean?" asked Tom.

"Well," Walt went on. "Suppose that on the side you were doing a little consulting engineering and one of your clients was a competitor of mine. My stuff is all protected by patents. Your client comes up with a problem, and you solve it for him. Then one day I find that my competitor has underbid me and taken away several cus-

tomers. You accidentally drop a check out of your pocket in my presence and I see the name of my competitor on it. I can at once draw the conclusion that you are the cause of my troubles and are a paid spy of my competitor. Actually you leaned over backwards in your ethics, you were paid for something I myself would have approved of your doing, and nothing you did caused any of my troubles. In my mind that check could be damning evidence against you regardless."

"I SEE what you mean," Tom said thoughtfully. "PLWI should have informed the government at all times of every source of income and every development."

"No, it goes deeper than that," Walt said. "I'm quite sure the government has been kept informed. We've been investigated several times by senate committees. We've had to make annual financial reports to the Internal Revenue Department. Every word published by PLWI has three copies in the library in order to establish copyright. Nothing has ever been kept secret from anybody. John Doe off the street could have gone in and looked over the books any day since the organization was first started. It's just that the government never realized or suspected our strength. Now that they do, the only thing they can do to combat it is to distort in just the right directions and to just the right degree to cast a reasonable doubt on the leaders."

"And a reasonable doubt on the logic of our principles," Tom added.

"They can only do that to people who don't know much about us," Walt added. "During our eighteen years of existence we have carefully gone over every possible angle and figured out the consequences of every situation

that could come up. Ninety percent of our members under twenty-five years of age had been educated in the ways of passive resistance and have gone over every argument the government can present and seen its reputation, in their routine education.

"The attack of the government on our logic will only nibble off the fringes—the members who haven't belonged very long and haven't been actively interested. This won't be worth their effort, and I think they'll realize it before long. No doubt government experts are studying every scrap of literature on us they can lay their hands on. If it doesn't convert the experts to our side it will at least show them that destroying the organization won't stop the members from carrying on as individuals. We've been trained to realize that even though the organization remained intact, it would be the actions of the individuals, and not the orders of the leaders, that would count.

"I think their next move will be to order all pillwees on the Atlantic coast to go inland. They have orders to do that when the government orders it. Maybe their next move after that one will be to segregate us. I doubt if there will be any program of imprisonment or killing. There won't be time for that, for one thing."

The three non-pillwee workers had been listening to all this silently. Now one of them spoke up.

"What will you do if the Arabs lick the government and occupy the country? What will you do if they set up a government of their own in the United States?"

"In the first place," Walt said, "we would stop paying taxes, so the government would not get much revenue. To supplant this we would carry out a program already formed, by which we would pay our teachers directly,

and all our other necessary public servants, such as road crews, et cetera. Along with this, any citizen ordered sent to any other part of the country would have to be carried there by the enemy, because he wouldn't move a foot. Any materials the enemy government requisitioned would be the signal for everyone engaged in producing them to stop work. We have detailed programs for providing food for the citizens and denying it to the invaders. We have detailed programs for propagandizing the armies of occupation to make them come over to our ways of thinking. All of them have nonviolence and passive resistance as their basis."

"THAT SOUNDS like Mahatma Gandhi was your founder," the workman remarked.

"In a way," Walt said quietly, "he was. So were lots of others. The Quakers laid down many of our basic principles. Jehovah's Witnesses laid down the principle that if a man does not believe in war and cannot be classed as an objector by law he should stick to his belief anyway, in violence of law. Judaism laid down many of our principles. We had the history of all these movements on which to draw, so that we would not repeat mistakes they made.

"Even our basic tenet, that you don't have to believe in God to believe that war is wrong, was not new. We just started at a time when people were ripe for PLWI, and worked a little harder to spread our ideas and make them popular. We were helped by the endorsement and active participation of many of the former groups. We had a large public that had tasted the horror of war, and eighteen years of peace in which to grow strong. The world was ripe for PLWI. It couldn't have gained much support prior to

World War II. It would have failed if it had waited to start until ten years after that last war ended. By then the people would have forgotten the war, and would have been too lethargic to have gone into this thing in the spirit of a crusade. As it was, we didn't have time to grow to the point where war would REALLY have been impossible. Another ten years in the Moslem States would have been enough, I think."

"You know," the worker said with a grin, "if it weren't too late I think I would like to join in with you. But of course it's too late now. Everybody would think I was just joining to dodge the draft."

"It's never too late," Walt said earnestly. "If you really believe in us you won't let what people think stop you. This is a war between believers in peace and believers in war, not between Christians and Mohammedans, or between Arabia and the United States. That, spectacular as it may be, is just a side issue, and a quarrel between factions of those on the side for war. There are probably more Moslems giving their lives right this minute in the fight for peace than there will be Americans lost by the invasion of the Moslem fleet, if it succeeds!"

"I think I'll join," the worker said, suddenly making up his mind. "To hell with what people think."

"That's what I say," the other two said almost in unison.

"Tom," Walt said enthusiastically, "get three application forms out of my desk in the office."

"By strange coincidence," Tom smiled, "I happen to have half a dozen of them in my pocket."

CHAPTER VI

WALT HOPPED out of Tom's car, waving him a cheery good-bye

as he slammed the car door. Then he walked lightly up toward the front porch of his house, whistling merrily. The signing of the PLWI vow by the last three of his employees had been just the thing to send his spirits soaring. He knew that Louise would be overjoyed at this news, too, and was hurrying to share it with her.

Idly he wondered why she wasn't at the front door to meet him as she usually was. He shrugged his shoulders over this without interrupting his whistling. She was probably busy getting the evening meal ready.

He opened the front door and walked in, calling that he was home as he took off his hat and coat and hung them in the hall closet.

Louise came into the hall from the bedroom. Her face was white and drawn. She was smiling wanly, and tears hung on her cheeks and made her eyes glisten with over-brightness.

"What's the matter, darling?" Walt asked, holding out his arms and walking toward her. "What are you crying for? If you've been worrying about me, you just wasted your worry as usual. Not only did nothing happen to me, but the last three men in the shop signed the pillwee vow this afternoon."

Louise seemed not to hear this news. She broke into tears and ran to her husband, muffling her sobs against his shoulder.

Wonderingly he pulled her head back to where he could look into her eyes. He repeated his question.

"It's Jack," Louise finally managed to say. "He's—he's—" She broke into uncontrollable sobs again.

"What about Jack?" Walt asked alarmed. "Has he been hurt?"

"I'm sorry," Louise gained control of herself. "No, he isn't hurt. He just joined the army. That's all."

Her voice became bitter.

"All our teaching doesn't seem to have done much good," she continued. "Edith went to the meeting with him last night. All the figures that showed how strong we are didn't give her confidence. It just alarmed her. She told him that with a third of the population gone mad it was up to the few sane ones left to save them from their folly. She evidently worked on him some last night when he took her home. Then this noon she really worked on him. That broadcast by Johnny Davis this afternoon in which he said the leaders were paid subversive agents was the final straw. I guess some of the students at the business school had been working on him, too. He rushed out and signed up. And now it's too late to do anything about it. Even if we got him to change his mind the army has his signature and can make him go through with it."

She broke into convulsive sobs.

Walt's face settled into grim lines of defeat. Thoughts raced relentlessly through his mind. If it had been the way it used to be his son's signature wouldn't be legal, but the law had been changed years before so that an eighteen-year-old's signature was legal. Mad suggestions rushed into his mind. "Lock him in the cellar," his mind screamed. "Tie him up and go way out where no one can find you, and keep him prisoner until the war's over."

HIS MIND considered and then rejected all these schemes dictated by father love. Gradually his features relaxed into hopeless resignation. Nothing could be done now, so he might as well be graceful about it and make the most of things as they had to be.

"Where's Jack now?" he finally asked in a quiet voice.

"He's in his room, packing," Louise said, standing away and drying her eyes.

With heavy steps Walt opened the door to the stairway and went upstairs to Jack's room. He turned the knob and gave the door a slight push, then stood silently and watched as it opened to reveal what was inside.

Jack was bent over a chair on which rested an open suitcase. He was cramming a few odds and ends into an already crowded case, his mind intent on what he was doing so that he had not heard his father come up.

Suddenly the movement of the door caught his eye and he straightened up. His face paled and his teeth gripped his lips to keep them from quivering.

"Hello, Dad," he said dully.

"Good evening, son," Walt said. "Mother tells me you joined the army."

"That's right," Jack replied, biting his lip and bending over the suitcase again to hide his emotions.

"I hope you are able to show them you are the man I know you to be," Walt said quietly, a smile on his face.

Jack's form stiffened in surprise. His face lifted and his eyes gave his father a piercing look, taking in the resigned expression and the smile.

"Then you aren't going to fight it?" he asked, amazed and bewildered.

"There's nothing I can fight," Walt said, coming into the room and sitting slowly on the edge of the bed. "Logic is a wonderful thing. Sometimes two opposing sides have logic to back them. The two sides are the horns of a dilemma. And sometimes the only way to resolve the dilemma is to carry the thing out one way or another a little further.

"Naturally I had hoped that you would stick by your resolve not to join. I knew that there would be some who would renege, but it hadn't oc-

curred to me it would be my own son. It is, and that's all there is to it. You have your life to live, and I wouldn't override your decision even if I could legally do it. So don't think I came up to cry over spilt milk. I came up to help you pack—and wish you all the luck there is. I know you will come home again much wiser and more mature in your judgement if you live through it. If you don't live through it—well, I very nearly didn't live through it once myself."

He looked at his son with a twisted grin on his face. Jack stood motionless while his words sunk in. Then he was sitting on the bed at his dad's side. They were gripping each other's shoulders and peering into each other's eyes. If there were tears in their eyes there was no one to see it.

"Better get on with your packing, son," Walt said, breaking the spell.

"Yeah, guess I'd better," Jack said shakily. He went over to the dresser and started emptying a drawer of shaving things and carrying them over to his bag.

Walt went to the door and opened it.

"Oh, Mother," he called downstairs. "Better get supper on the table. Jack will need a good meal before he starts to the induction center."

THE MOSLEM fleet spread out to encompass the whole horizon in mid-Atlantic. Coming to meet it was a part of the United States fleet. In the air the huge battle cruisers of the United Nations passed the slower surface ships and went on.

Now and then a smaller, supersonic robomb left one of the air ships and forged ahead, bent on one single purpose—to destroy. It came within sight of the Moslem fleet and then wavered, as if hesitant about what course to pursue. Then it would dive and plunge

harmlessly into the sea, to sink to the bottom unexploded.

Here and there occasionally a spout of water would lift lazily into the air and then fall back. To the American observers in the air this was a sad sight, because it meant that one more submarine had been located and destroyed, with the loss of a hundred and twenty men, not to mention the man hours and money it took to build one.

An advance formation of air cruisers climbed over the horizon into sight of the Moslem fleet. Then one after another of the huge airships went out of control and spiralled down into the sea, its forward section melted and twisted, and its motors on fire.

Still the Moslem fleet came on at a constant twenty-five knots, and not a ship wavered from its set course.

Other United Nations airships, still out of sight of the Moslem fleet, saw the destruction of the foremost ships and stopped—circling in formation while they discussed the new occurrences.

The discussions were beamed down to the American ships below, then relayed in tight beam through a series of ships until they came out at the UN headquarters in New York. Here the best military brains of the world pondered the data, and coordinated them with what had already been known before.

The huge rocket bombs sent to destroy Mecca had failed to explode. Later bombs of a different type had been sent. These had exploded far up in the stratosphere and sprayed fissionable matter in an area of several hundred square miles which included Mecca. This Holy City would be uninhabitable for centuries to come because of that.

Blanket robombs had been sent

against the fleet coming toward America. These were designed to disgorge hundreds of small atom bombs of the newest type with neutron shields which brought the critical mass down to a few ounces of fissionable metal. Each was equivalent to ten tons of TNT, and they were sprayed into a pattern which covered the whole ocean.

Observation planes in the stratosphere reported that these rained down as they were designed to do, but that miraculously they avoided the Moslem ships and plunged into the sea around them, exploding as they hit the water, but doing no apparent damage to the ships they were aimed at.

Next had come supersonic, low flying rockets. These had all missed their mark, contrary to the laws of probability. Next had come the expensive seeing eye-robombs. A radio blanket had nullified these.

Everything had now been tried except old-fashioned artillery from obsolete battleships—and the spray bombs like those which had knocked out Mecca. The battleships were on their way toward the Moslem fleet and would meet it in a few hours. Debate was going on as to whether the spray bombs should be tried instead, so as to prevent almost certain large casualties among the surface ships.

IT WAS NOW obvious that the Moslem fleet was a coordinated defense unit, whose radar and sonar senses probed to the horizon, to the outer stratosphere, and to the ocean bottom in all directions. The reaction to threat was so instantaneous and perfect that it was also obvious that every defense weapon of the enemy fleet was also robot-directed. It was by no means certain that the ships even carried living men! Their purpose in crossing the Atlantic could not be guessed.

Landing parties could be easily destroyed by land installations before they reached the beaches. If the coming ships were merely slow moving cargoes of destruction they could not do any damage except to strip a few miles deep along the shore.

Mine fields didn't faze them. They unerringly detected each mine and sent a small robot sub to explode it ahead of time. Heat rays and directed sound broke up airplanes by melting the fragile, easily melted skin of the ship and setting up vibrations in the ships that accumulated to the point where they made them fall apart.

If there were time, the defense could be completely analyzed and a method of penetrating it devised. Three days would not be long enough to more than partially analyze it, however, and there were just two more weapons. The heavy guns on the forty-five-ton battleships might reach their targets in spite of heat rays, deflecting vortices, or even the small, incredibly fast robombs which could be sent to meet such projectiles and send them off their course.

If these failed, the spray bombs could send a rain of nuclear material down on ships and the ocean which could not be avoided by any known defense. It would destroy all life on the ships within a few hours by its mere presence. It would also destroy millions of tons of fish and make the ocean water dangerous for many years to come. That is why the United Nations strategy board hesitated to use it.

In fact, they might choose to let the ships come on and do their worst rather than pollute the Atlantic dangerously for centuries!

They discussed, and while they discussed the Moslem fleet came on inexorably, its invisible radar and sonar

tentacles reaching out, searching—to destroy everything in its path. It was a dumb beast squatting on the Earth and moving over its surface. All effort to get any kind of a message from the ships had failed. They neither answered frantic pleas for a settlement of their purpose nor sent messages back to their headquarters. They were a thing apart from all else, and their threat hung over the nation like a dark cloud that hides the face of the sun.

IN EUROPE the Moslem hordes were in complete control. France had fallen and so had Italy. The United Nations police had quietly melted into the underground to wait for a rescue force to come in and engage the swarms of dark-skinned soldiers. Uniformed UN soldiers were imprisoned in their own concentration camps. Skeleton forces were left to guard them. The rest of the conquering armies swept on, ignoring and being ignored by the civilians.

Little except meager facts was coming through to America. Station after station went silent after short broadcasts which told practically nothing.

The Moslems were only a short distance away. The Moslems were coming closer. The Moslems— Silence.

UN planes zoomed over Europe daily from the Polar Base, nibbling at the advancing ribbons, which, closer to the ground, resolved into fast trucks moving along well-built highways. In a few places troops were parachuted down well ahead of the Moslems to stop their advance.

The complete disarmament of Europe to the east of France made any kind of military offensive impossible. The French troops which were supposed to move in and support the troops dropped from the sky were

sadly lacking in both numbers and wise leadership.

After the war three of these UN paratroopers wrote books on their experiences in Europe. The strangest and most disconcerting thing of all to them was the attitude of the native civilians, who treated them with a mixture of friendliness and pity. When they attempted to commandeer cars and food they were confronted with local police who told them they must not steal. When they overrode the local police and requisitioned what they needed they were met with a stony wall of unfriendliness and refusal to cooperate.

It was obvious that Europe did not care who rode the highways so long as they paid for what they took and did not try to tell the civilians what they must do. The natives would not fight. They left both Moslem and UN troops to fight their own battles. As a consequence, there was practically no fighting at all.

The Moslems considered this indifference of the Europeans a huge joke. They made no bones about their aims. First they would occupy all key positions in Europe with sufficient troops to quell any future uprising. Then they would forbid any religion except Islam, and enforce it as the universal creed. They would man all the schools with their own teachers, so that in a few generations Islam would be established and Christianity would be dead. They pointed out that the destruction of the Vatican and the heads of the Catholic church had obviously ended Christianity except for a few of the devout among the laymen, who would be unable to carry on very long in the face of a strong, virulent Islam. They denied that Mecca had been destroyed. Often they would admit that Mecca might be uninhabitable by mortals now, but that the spiri-

tual head of Islam could not be driven away or hurt by gamma rays and neutrons.

THE GERMAN, French, Polish, and European peoples merely looked at one another and smiled as at some secret they shared with one another. A long line of Moslem tanks coming into a village on its journeys in search of something to fight was a signal for a gala holiday of welcome and celebration. A contingent of UN paratroopers marching into town in search of something their size to fight, or equipment with which they could engage the enemy tanks, called for an equal celebration.

The spirit of war just couldn't be maintained among the troops of either side; but this fact was not known in America until months later. All that was known was the meager facts reported to UN bases by paratroopers with walkie talkies in communication with the planes that brought them.

The cloak of silence that shrouded Europe was not the immediate concern of America. The slowly approaching Moslem fleet occupied the attention to the exclusion of all else. Civilians were being evacuated from the Atlantic coast with rapid efficiency. Troops were being brought in from all over the country. Every possibility was being considered, and thousands of hastily organized staffs were reading the mountains of mail sent in by people from all over the country offering advice and theories, on the off chance that something obvious might have been overlooked by those in charge of defense.

Newly inducted soldiers were dumped every few yards along the full length of the Atlantic seaboard with mountains of equipment and left to figure the mess out as best they

could. Their portable radios kept them informed and gave them directions after a sort. The hours left before the deadline grew shorter. The Moslem fleet came on—thirty hours away, twenty-four, twenty, ten, none—All hope of stopping it at sea had been given up. The land would stop it. Then the troops aboard would have to land in vulnerable barges and could be dealt with effectively.

At least a million pairs of eyes saw the first ship of the coming fleet creep up over the horizon. One of these pairs of eyes belonged to Jack Birset.

WHEN JACK had left home he had gone down to the local induction center, arriving there just before eight o'clock in the evening. By nine-thirty he was in a plane headed for the Atlantic coast along with a hundred and fifty other inductees.

They had no uniforms. There wasn't time for uniforms to be made for the additions to the army. On the plane there was an officer who spent the eight hours across the country in giving what instructions he could.

The plane had had to stop for two hours at Chicago because of faulty sparkplugs in one of the motors. It was ten-thirty, EST, when Jack stepped down from the plane and fell into a clumsy formation with the others to await ground transportation to their stations.

It is doubtful if any accurate record of the distribution of troops and equipment was kept by the harried officers whose commands overlapped and in many cases coincided so that no one knew who was in command of what sector. All the officers hoped for was to get the troops spread out uniformly with enough equipment so that they could function as independent units, strictly on their own.

The first ship to come over the hori-

zon met a barrage of fire from coast defense guns. The huge thirty-six-inch projectiles left the guns with ground-shaking percussions and almost instantly were succeeded by blinding flashes midway between the shore and the ship as they were met by air torpedoes which shattered them and destroyed their momentum.

Reaction speeds beyond belief were built into the weapons on the coming fleet. Not only did their radar detect and plot the course of projectiles, and send counter projectiles to unerringly intercept them; the locations of the coast defense guns were determined, and a new type of radioactive jelly bomb was fired into the area of the gun, to explode and spread a radioactive glue-like substance which clung to the clothing, the branches of trees, and the ground, causing the gun crews to go insane from the horrible agony of searing death that burned the skin. From the jelly that splotted the corpses a seething foam began to rise which set loose small bubbles. These rose into the slight landward breeze and drifted into the companies of men. Where they lit they stuck with glue-like tenacity, contaminating with the deadly radioactives they carried.

THE MOSLEM ships sailed right up to the beaches and when they touched bottom huge tractor treads carried them out of the water onto the land where they continued their slow, inexorable pace, countering every blow and returning it with infallible effect.

Each ship became a huge thirty-five-thousand-ton land truck against which there seemed no means of defense. The American troops fell back or were brushed to one side and left contemptuously in the rear.

Finally the defense settled into careful avoidance of these monsters. They roamed over the land near the coast-

line unhindered and unopposed.

The incredible ultimate of twentieth-century science had been achieved by the Moslems. Or had it? Was there some weakness in the armor of these invaders? They seemed to have everything conceivable. Huge areas were soaked in gasoline and fired when an enemy ship was in the center of it. The ship merely spread a carbon dioxide foam around it and kept going.

Meanwhile American scientists were busy analyzing the atom jelly and devising new ways of attacking the enemy. Each day the atmosphere of hopelessness settled more grimly upon the country.

The avalanche of letters offering suggestions had changed to an avalanche of letters demanding that the government ask for peace terms.

Things seemed hopeless. It was as though a twentieth-century army with all its mechanized equipment had met the Roman armies of the year one hundred. Just as Hitler had studied all the errors made in the first world war and profited by them, so the Moslems had studied all the errors made in the second world war and profited by them. If Hitler had waited a few years to start his offensive he would have been so technologically superior to the allies that he might have won. The Moslems had waited and perfected their weapons. But were they perfect? That was the question the scientific genius of the Christian world was asking itself.

Then one day a letter came to the correspondence offices of the UN council which read, "Today I watched one of the enemy ships cross a state highway. It didn't bother to fire at the automobiles in sight, evidently considering them too harmless to waste ammunition on. Since the great difficulty seems to be in getting anything to the enemy ship, perhaps we have some

sort of weapon that could be hidden in an automobile that would catch a few of them before they caught on."

Pin-dotted maps in several offices were consulted and hasty plans laid. Twenty-four hours later the country was electrified by the news that the invincible fleet had been wiped out.

The heroes of the day were the men who had risked almost certain death to do it. One of these heroes, Lt. J. C. Andrews, told the story of how he destroyed one of the enemy tank cruisers.

"We knew that it would cross the highway at about a certain spot at a certain time. The automobile with the atom bomb in it was all ready. I timed my speed so as to get to the desired point on the highway just as the huge ship was bearing down on me.

"Jerking the car so as to give an impression of engine trouble, I brought it to a slow stop directly in the path of the monster. Just for effect I hopped out and raised the hood, pretending to search frantically for the cause of the trouble, glancing at the oncoming tank quite often so they would think my sole desire was to fix the trouble and save my car from being run over by them.

"**W**HEN THEY were about a hundred yards from me I shook my fist at them, then thumbed my nose at them to make sure they would not avoid my car.

"After that I ran as I have never run before. I had no hope of covering five miles and finding protection from the blast in the short moments before the explosion would occur. Nevertheless, hope springs eternal, so I ran.

"I don't know yet how I escaped death. One minute I was running. The

next I was opening my eyes in an ambulance, swathed in bandages. They tell me I managed to get into a storm cellar just before the blast and that my location was radioed by an observation plane to an ambulance depot which immediately sent out to rescue me.

"I'm very glad I succeeded in my mission. I hope that the war will soon be over and we can all resume a peaceful life once more."

The people assumed the war had ended with the destruction of the Moslem fleet. Victory parades jammed the streets in many cities.

The cold dinning of the radio finally brought the people down to earth with the reminder that the Moslems were still in possession of Europe and that to drive them back home and defeat them might require long years of warfare and hardship.

This news was lightened by the prediction that at least half of the Moslem fleet could be decontaminated and put in commission again and used against its builders.

Thousands of technicians and workers had been rushed to the wrecked cruisers to decontaminate them and study their construction. Their repair took highest priority. When an order was received by any company to reproduce a part for repairing one of these ships, everything else had to be shelved at once and every resource of the company put to getting the part out in a matter of hours.

Within ten days after they had been stopped five of the cruisers were in operating condition again.

During those same ten days America had been girding itself for war on all fronts. Induction centers had called in twelve million men. Colleges had been shut down in the middle of classes and turned into training and organizational headquarters. Railroads, and

airlines had been loaded to capacity with inductees. Tourists on state highways were driven off by the moaning sirens of army caravans as they rushed here and there.

The radio and newspapers contained little other than war news and war editorials. The country was outraged at the deceit of the Moslems. On high authority it was rumored that a representative of the Moslem Federation had been at the Vatican on a mission of peace, and that the Pope had concluded a treaty with the Moslems to permit Catholicism to exist in the Federated Moslem States in exchange for permission to send Mohammedan missionaries into Italy and Spain where they were barred by law. It was further rumored that this representative had left hurriedly after receiving a coded message, refusing to stay another day in spite of the Pope's personal insistence; and that three hours after his departure the bomb had fallen to wipe out the Vatican.

THE NEWSPAPERS and the radio reported that Russia intended to do nothing. China was too disorganized to do more than provide troops. South America, although more industrialized than ever before, could do little toward manufacturing the implements of war.

It was driven home hourly to the American people that the salvation of the world lay in the hands of the United States alone: that if we did not rise at once and drive the barbaric hordes of Islam into defeat civilization would end, to be succeeded by the enslavement of the Christian world by the Moslems.

It was a grim picture. How much of it was true and how much fabricated to put the American public into the proper war spirit no one would have been able to determine.

Certain main facts undoubtedly were true. Paris, Rome, and the Vatican had undoubtedly been destroyed by atom bombs. The Moslem amphibious cruisers were the product of, at least ten years of intensive research and building and were designed primarily for aggression. No nation could have diverted the money and labor to produce such a fleet unless they planned on conquering the world. Those facts were self-evident.

They were the foundation which made any story, however fantastic, seem undoubtedly true. They were the fuel which kindled the eyes of every American with the light of crusade and of rescue.

Did I say every American? Well, not quite. By actual figures it would be more proper to say two Americans out of every three, for one out of every three was a pillwee.

That fact didn't reach the newspapers or the radio. In the press we were a people united by the presence of war. No hint of the local events which became gossip on the street ever reached the press. There were other things that weren't made public news. There was, for example, the case of Joe Trevor, multiplied a thousand times.

Joe was one of the workers in Walt's factory, a nineteen-year-old boy. Ordered to report to the induction center he obediently did so.

The lineup was a long one when Joe got there at eight o'clock in the morning, and it was nearly eleven before he reached the head of it. By then it was even longer, doubling back on itself so that there were nearly five hundred young men in the large room.

"Name," snapped the army clerk.

"Joseph B. Trevor," Joe replied.

"Joseph B. Trevor what?" the clerk echoed.

"Joseph B. Trevor, sir," Joe obliged him.

"That's better, Joe," the clerk smiled. "When you get in the army you will have to sling a lot of sirs around, so you might as well start now."

"I'm sorry, sir," Joe said half apologetically, "but I'm a member of PLWI."

"**P**ILLWEE or not," the clerk said firmly, "you'll have to sign in. There's a war on, you know. The time for social gatherings and philosophy is over."

He pushed a white paper across the table in front of Joe and held out a pen.

"Sign here," he said calmly.

"Sorry," Joe said. His face was tense and pale, but he stuck to his oath.

The news of what was going on travelled down the line of waiting men.

"A d—n pillwee. One of those fifth columnists who refuses to fight for his country. Kill the b—d. Nobody has a right to live in this country who won't defend it and fight for it."

The whispers became loud voices. It might not have become more than that except for the fact that the man behind Joe in the line struck him.

Joe caught his balance and turned in time to see a third man hit the one who had hit him.

"I'm a pillwee, too," the third man shouted. "I'm proud of it, too."

The words were barely out of his mouth when another man struck him. He swayed with the blow and returned it with a short left to the jaw that sent the fourth man to the floor.

It developed that there were quite a few pillwees in the lineup. They stepped out of their places and went

to the side of the victorious pillwee and Joe.

A general fight started in which fists flew in all directions. Some of the men later insisted that they had stepped in merely to stop the fighting, but were a little confused on how they intended doing it unless it was to put everyone to sleep.

The room soon filled with uniforms and order was restored. The induction proceedings went on after that with soldiers standing alertly near the clerk's table.

Pillwees who refused to sign the induction papers were sent home and ordered to be ready for a call. The army was going slow on strong measures.

The riot didn't reach the newspapers. No one could be sure how many similar incidents took place during the period of induction.

NO ONE knew how many factory owners like Walt had refused to convert their factories to war production. No one knew how unsuccessful the draft was.

The army was keeping such statistics secret from the public. It was a civil war in which one side seemed to hold the power of the press for its own exclusive weapon.

Then one morning people discovered the city of Spokane literally covered with posters displaying the picture of Senator Blank being arrested by the police.

The picture, four columns wide and half a page long, showed the senator standing erect, a smile on his face, with his manacled hands held up for all to see. On either side of him were policemen, one facing the camera with a look of uncertainty on his face, the other with his back to the camera.

Four inch letters at the top of the sheet asked *Is this America?*

Below, in fine print, the facts and

figures Senator Blank had handed out were given along with many excerpts from his speech. Also a long article told the story of his life and his work as a pillwee.

Not only in Spokane, but in every city in the country the streets were covered with these papers. Street-cleaning crews working at top speed cleaned them up quickly; but millions of people had seen them. In outlying streets some of the papers lay in plain sight for days. Many thousands of the papers were picked up by people and saved.

The careful censorship of the government had failed. It would fail again because of a small item on that paper which read:

WEAR AN EMBLEM

We must all wear some sort of badge to show people we are pillwees. We should have large buttons to wear. The manufacture of these is up to individuals who have the facilities for that. Either a button or a ribbon should be worn. It should have a blue background with red and white letters, PLWI.

Any combination of the three colors with the four letters will do so long as you get or make one and wear it.

Before the day was over people all over the United States could see with their own eyes what proportion of the people were pillwees.

CHAPTER VII

THE PLANE carrying Senator Blank had made an emergency landing in Montana to pick up a doctor, then had gone on to Washington, D.C. It was met at the airport by an ambulance. From there it had gone to a hospital, carrying the senator who had a heart attack shortly after the plane left Spokane.

The President's own doctor with

several others in consultation were in attendance on him. Their orders were that he must not die under any circumstances or it might mean the loss of the sovereignty of the United States.

"This man alive," the doctors had been told, "is just the leader of several million conscientious objectors. If he dies in our hands by any accident or coincidence those millions will be convinced that we were to blame. He will be a martyr and a god to them. So keep him alive."

They were prepared to do just that. An electrocardiograph machine was sitting beside the senator's bed. The bed was not in a regular hospital room, but in one of the surgeries. One of the greatest surgeons in the world was relaxed in a chair near the bed. An intern never took his eyes from the wavering needle on the electrocardiograph. Two other doctors hovered near the bed, their eyes constantly analyzing the features of the senator.

Equipment of all kinds was in sterile cabinets along one wall. On one of the shelves reposed the fabled Johnson Heart, a mechanical heart to be substituted for the natural one. Few people had seen it; and though many of them had been put into dogs in experiments, only one had been used on a human before and he was a convict who still lived.

Senator Blank's eyes were closed. His lips were in constant feeble motion but no words issued from them. The words were in his mind only.

His mind was reliving the past, and the past shifted here and there without volition.

"Nonsense, Walt, premonition doesn't mean a damn thing," he was saying. "Half the men in the air force have gone out at some time or other

convinced that they wouldn't come back. They DID come back."

"I hope so, sir," Walt answered. "I can't get it out of my mind though."

General Blank glanced at the sun, a huge red orb half blotted out against the western horizon. The rice fields and Chinese peasants were a sea of foreignness around the American airfield.

"Suppose we have a drink together," General Blank said. "Then I'll issue special orders to make sure the plane you go in is in perfect shape. You'll be safer than you would be at home crossing the street. The plane will fly above the flack ceiling and all the plane will do is fly over the target and drop the bombs. Then it comes back to base."

I SHOULDN'T let him go up. I've seen men with this feeling before and they never come back. I can't tell him that, though. I've got to lie to him. There's no one to take his place and without him I'd have to ground a whole crew and their plane.

How I hate being responsible for the lives of my men. If Walt doesn't come back I'll feel like a murderer. I would rather go up myself and give the responsibility to someone else. God, what monsters we become in a war. I send up these planes under my command knowing that hundreds of innocent women and children will die when those bombs they carry are dropped. I lie to my men and send them up, knowing that some of them may not return.

I cheer them up by drinking with them, but I know it's the last time for them. I'll get medals for all this after awhile and be called a hero. God! I might just as well take a gun and line those Japanese peasants up against the wall and shoot them down

with my own hand. My men too—one by one.

Mustn't think these thoughts. They'll get me down. Got to keep it on an intellectual level, like shooting clay ducks in a shooting gallery. Got to keep telling myself that bombing the Japs in their hovels makes sense and it will save lots of American lives. Got to keep thinking an American is worth ten Japs. Got to remember that if I lost control of myself and started speaking about these things the doc would look at me pityingly and put me in a padded cell.

A MAN WITH a general's uniform on came quietly into the operating room and glanced anxiously at the still figure of Senator Blank.

"How is he," he whispered, looking at one of the doctors standing in a huddled group.

They shook their heads dispiritedly.

The man looked over at the cabinet containing the Johnson Heart and raised his eyebrows questioningly.

"We may have to put it in any minute now," the surgeon sitting by the window said tonelessly.

"So this is Tony Leonetti! Glad to meet you, Tony. I've heard a lot about you. Hmm. You do look a lot like an Arab. Probably have some of the same blood in you. Most Italians and Spaniards do. You may get by at that if your command of the language is sufficient."

"It is, sir," the handsome young American born Italian said. "Thanks to PLWI I've had a solid year to perfect myself in it. I've memorized city plans, landmarks, history, and customs so that I can find my way around just like I'd lived there all my life."

"It's the least we could do before letting you go. You know, don't you, that you will be executed if you are

caught? You do realize that?"

"Let's hope not."

"Yes, sir," Tony said gravely. "I know. But I won't be caught."

"Even if I am," Tony went on, "It's in a worthwhile cause. I know that the hardest part is to get the first million converts. After that there is sanctuary for us, and places to speak. Thousands will listen when they know that their friends and neighbors have dared to do the same, where few will even listen in the Moslem states now."

"You know too, don't you, that it is beginning to look like the Moslem States are the only ones integrated enough right now and strong enough to make another world war possible? You realize the importance of your work, I know that. Go in there feeling that if you fail the future of the world will be affected. It will, too. The convert you make this year will be the means of converting dozens of others later, and those dozens will determine whether the people of Islam have a will to war when the time comes that they can hope to throw off the yoke of France and defy the Christian world. Good luck to you, boy."

SENATOR BLANK'S eyes opened suddenly. A look of utter horror dilated them, and he tried to rise up in bed. Pain cramped the muscles of his face into a gruesome mask. He fell back motionless.

The needle on the electrocardiograph ceased its peaceful wanderings and became motionless.

"Quick!" shouted several voices in unison.

The room became a scene of quick, trained action as men lifted the dead body of the senator onto the operating table and nurses began doing their predetermined tasks.

In a few seconds the sure hands of the great surgeon had made their first incision. Saws and knives and hands moved with lightning speed as the chest was opened up and the dead heart removed.

The shining plastic mechanism took its place and the delicate process of getting the blood to flow again without coagulation began.

The straight line on the electrocardiograph chart was only one minute and thirty-seven seconds long as the flow of blood took up where it had left off. Delicate adjustments were made as the minutes flew by so that the line on the chart would be just like the former line of heart action.

As soon as blood flow began a strong opiate was injected into the stream to prevent the return of consciousness too soon.

Two hours after the operation had begun the surgeon was putting flesh and bone back in place, fitting them carefully around the power and remote control cable that led outside the body.

The encephalograph showed the restoration of near normal brain functioning with no hemorrhage. Skin color and portable fluoroscope examination showed no damage to any part of the body.

The time came when there was nothing more to do. Doctors, interns, and nurses began to realize the strain and nervous tension they had been under.

A second after the surgeon said it was over a low feminine moan escaped the lips of one of the nurses and she collapsed where she stood.

Another started to laugh. An intern raised his hand to slap her. She backed away defensively.

"I'm not hysterical," she said. "It just struck me funny that Molly

could perform her work so perfectly for hours and then drop like that when it's over. It IS funny, but I won't laugh if it disturbs you."

I'M DEAD. *I know I just died. It's funny though. I can still feel. I can hear the doctors shouting. It's a little dim and dying out by the second, but I can still hear.*

Ouch! That hurt. Now it doesn't, even though I can still feel. They're cutting into me. I wonder why? Do they think I'm still alive? Can't move. Maybe if I try harder.

Ugh. That made me feel queer. Something gave way. I can move a little now. Maybe I can stand up. I feel better and don't hurt anyplace now.

What's the matter with those doctors? Can't they see me standing here? Oh my God! That's me they're working on with my chest all cut open. So there is life after death! I always felt that there was, but now I can realize it.

They're trying to bring me back to life somehow. Hope they can't. Never felt better in my life. That's really funny. Never felt better in my life than now when I'm dead.

Who're those people standing over there? They act like they can see me standing here. They look funny themselves. Queer clothes they have on. Or are they clothes?

Look at that fellow bending over the doctor's shoulders. By gosh, he's got hold of the doctor's hands and is moving them! The doctor doesn't even notice it.

Everybody seems to be ignoring me. Well, I don't blame them. Because of me America will be so weakened that the Moslems can conquer the world. It's all my fault. There probably isn't a place in hell hot enough for

me. I don't blame these spirits for ignoring me.

I wish I were dead. Hey! I am dead! Get hold of yourself, Joe. I feel so lightheaded. Wonder if I can move. Think I'll try it.

Nope. Can't move an inch. Hey! Wait a minute! I'm being sucked back! Oh God! I can feel my body now and I'm not in it. Oh, it hurts. My ribs! It's getting dark—dark....

“CAN YOU hear me, Joe?”

“Yes, I can hear you. Where are you? I can't see. I can't see anything. It's all black.”

“You're going to live, Joe. There's still work for you to do. You must live for a long time yet, Joe. There will be trouble and you are the only one who can guide the people and hold them fast to their vows. It will be hard, but you must have faith in the future. You must give THEM faith, too.

“It will be so hard for you, Joe. But it's got to be done. The world must know what peace means so that it can turn from war. We'll help you. We've helped you from the very first. Remember your first speech and the vision you had as you made it? We were with you then.

“You must show mankind the Way and the Light, Joe. It isn't something religious and miraculous. It's just as natural as falling off a log. It's just as simple as ABC, Joe. You've got to make the people hang on to it. Will you, Joe?”

“Yes, I will.”

“There's going to be a bad war, Joe. You'll see your friends killed. You'll see things that'll make the old war look like neighborhood kid fights. We'll be with you all the time, though. You must be a rock wall against which all governments will beat their heads in vain. You must be a comfort-

ing father to those who stand up to die without raising a hand to defend themselves with. You must never waiver for an instant. Then the armies will melt away and the will to war will be gone forever, as it is in Sweden.

“You haven't failed, Joe. The old order dies to make way for the new, where the lion shall lie down with the lamb and all men are brothers; when war shall be no more. It's hard, Joe. It's hard to stand up and die without fighting. It might even seem a futile way to die, but it isn't. It takes more courage than to fight like a cornered rat and kill others. You have to tell them that, Joe. It takes guts.”

Senator Blank's lips moved feebly. The sun outside had dipped low enough so that its rays seemed to be a ladder of light that rested on the still figure.

A NURSE stood with her eyes fixed hypnotically on a spot near the sleeping patient. One of the doctors coming back into the room after changing his clothes to street attire noticed her expression.

“What's the matter, Miss Blakely?” he asked.

His voice broke the spell. She jerked and blinked her eyes, then laughed self-consciously.

“Oh, nothing,” she answered. “It was just the way the sunlight— It made one of those optical illusions, I guess. Quite a remarkable one. It looked like a tall, semi-visible man wearing a white robe was standing by Senator Blank and talking to him. It was so perfect an illusion that I could almost draw a picture of him. He had a very high forehead with large blue eyes and a look of extreme intelligence about his face. His lips were moving just like he might be talking.”

She looked back at the spot her eyes had been fixed on.

"It's gone now," she said. "I guess the sun had to be just right to create the illusion. Oh, I can see the details of the curtain that probably helped the sunlight form that image, and I realize the mind tends to complete a semi-image and make it sensible. But if I didn't know the tricks the mind plays on one I would have taken a solemn oath that I saw an angel talking to the senator. Now isn't that one for the books, doctor?"

She laughed doubtfully.

The doctor looked at the sleeping man.

"Oh, I don't know," he said softly. "I rather think that if angels do talk to mortals—assuming there are angels, of course—they would be more likely to talk to him than to

most men I might call to mind.

"Speaking of angels, the operating surgeon said something queer in the dressing room a moment ago. He said that when he was performing the operation the backs of his hands seemed hot, and his hands seemed to move of their own volition at times.

"I think his exact words were, 'Half the time during that operation I just watched my hands move with amazement and admired their skill and sureness rather than actively directed them.'

"Of course that's just his way of being modest and trying to avoid flattery for his work. Hmm. This operation made history in several different ways, it seems. Well, good day, Miss Blakely."

"Good day, doctor," the nurse said.

THE END

Slide-Rule ROBOTS

BY SAM DEWEY

ANYONE who is aware of aviation's tremendous demand for scientists and engineers realizes the causes for this demand. Progress, through the jet engine and electronics has gone ahead at such a clip that there are simply not enough men to handle the problems which arise. Right now the limitation on aircraft speeds is not in engines or machines of any kind. Rather it is the human pilot, whose reflexes are not fast enough to permit him to control his monstrous projectile at speeds almost equal to those of sound. The human system cannot act fast enough.

The slide-rule boys, therefore, are working like mad to create the necessary robotic gadgets to handle the flying machinery at such speeds. This accounts for the enormous demand for research engineers and designers. Under the pressure of partial war, as we are now, this demand is accelerated. When transcontinental rocket-driven aircraft become common—and

that'll happen sooner than you think—human pilots will only be supervising or recording observers. The actual flying of the aircraft will be done either robotically through electronic brains, or from the ground through radio and radar by a similar system.

Far from being depressing, the thought is encouraging, for it is a further step toward rocketry where speeds will be fantastically greater and require even more automatism. The present aircraft industry, in its search for new alloys, new gadgets, new apparatus, is providing the stimulus—formerly provided by the automotive industry—for the encouragement of free-thinking designers. Anything goes—and the more original (fantastic would have been the former word) the idea, the better! If you say now you can send a rocket to the Moon with a motor built of papier-mache—good! But prove it, that's all!

FRONTIERS UNLIMITED | By Sid Overman

THE VOICES of several historians—most notably Professor Webb—have been prophesying the doom of Western civilization, primarily, their theses state, as a result of the vanished frontier. Nowhere on Earth, they say, is there room for expansion, for the creation of new markets, or for the distribution of overloaded populations. This is a defensible view only if you assume that the frontiers are actually closed, but for some reason or other these eminent men fail to recognize or refuse to recognize that actually we are on the verge of opening a new frontier—space.

This point has been brought home, not by the science-fiction magazines or the science-fiction fans who have known for years that eventually new frontiers in space were going to be opened, but by engineers and scientists who are not dreaming or guessing, but who are coldly planning, the real opening.

At the Hayden Planetarium's Symposium on Space Medicine, hundreds of doctors, engineers and scientists assembled and heard discussions of the physical problems involved in putting men into space, on the Moon and on Mars and Venus. In mathematical, analytical terms, the scientists surveyed the problem, isolating those matters of great difficulty, explaining the physical and physiological problems involved, and otherwise conducting them-

selves as scientists.

It is hard for s-f fans and readers even to begin to realize that their long-cherished dreams of putting men into space have really passed from their hands into the hands of the technicians who will make them come true. But the s-f fans' interest and vociferousness have done a great deal to create at least an awareness of the problem.

The Symposium held at the Hayden Planetarium would have been old hat to s-f people, and yet in some ways it was new, for the discussion was not on a theoretical level but rather on an operational one. The scientists said in effect: "Men are ready to go. So far as we can discover all physical and physiological problems have been surveyed and found soluble. Only one thing stands in the way—money. Give space rocketry money for research and development and men will go into space not in decades, but in years!"

In the light of these attitudes, the views of the history professors are certainly untenable. For some narrow specialist's reasons, they seem unable to realize that now that one frontier has vanished, another has been found, this one practically limitless. No, Western civilization is far from dying through lack of frontier. It is just beginning. The Moon and Mars and Venus will very soon feel the tread of Earthmen's feet, advancing, ever advancing....

POWER FROM THE SEA

By
JUNE
LURIE

ANYONE who has ever stood at the edge of the sea and watched the tides ebb must have had the universal thought—"What a waste of power!" The Earth's oceans, braked by the mighty gravitational drag of the Moon, swing and pulse periodically—countless billions of tons of water surging up and back—to no avail. The earliest scientists and philosophers pondered this sight and invariably bemoaned the lack of a technology able to make use of this free energy.

Today that technology exists, but until recently there has been such a plenitude of coal and oil and gas that nations have thought little of the use of the tidal basins. However, recent events have shown that such a possibility is too good to be ignored. Private inventors and enthusiasts have continually offered simple plans to harness the oceans of the world.

The trouble with capturing the tides in a huge basin and then emptying that basin through sluices leading through turbo-

generators is simple. An irregular cycle is set up, lasting only a few hours, and consequently the delivery of electricity would be an intermittent thing. Such has been the trouble with most proposed plans. But lately scientists have got a fresh grip on the problem and have decided to use the multiple-basin technique, wherein, for a good portion of the day, the energy of the powerful tides can be made to work electrical generators.

It is almost a certainty that, unless atomic energy makes astonishing strides within the next few decades, men are going to be forced to turn to the restless sea for power as well as food. Strangely enough, there are surprisingly few natural reservoirs suited for tidal storage basins, but it would really be no trick at all for powerful earth-moving machinery to make suitable cuts and channels wherein the immense forces of flowing water could be stored while their energies are drained through slowly turning generators.



The steady pounding of the robots was the beat of doom



THE SORCERESS

by Rog Phillips

**In their memory she was a goddess.
But now she returned to become a
reality in their terrible Present**

TO UNDERSTAND the vast powers in the huge frame and wide skull of Mantagna, to comprehend what he was—you would have to know the history of the era of the Change which he brought about with his discoveries. The short and hectic period of The Change immediately preceded the last great war—and was in reality connected in no way with

that war. But the Crusade against science with which surviving men (in a fury at the terrible world-wide slaughter of the A-bomb) wiped out the swift beneficence of the ferment of the Change—and plunged the earth again into the darkness of ignorance from which it had so barely, so tardily emerged.

In the few history books written at

that time, The Change was said to have been *the great medical revolution*, which was destined to end the Age of Iron.

It was really Mantagna who had planted the infinitely fecund seeds that caused the Change, and it was the vitality and cunning of Mantagna which enabled him to survive the Crusade and escape from men into the unpeopled tree world of Yucatan's greatest jungle.

It was Mantagna who had finally pulled together all the wonderful loose ends of Medicine and Chemistry and the Science of Electronics and Magnetic Flows—all the unused accumulated discoveries of a myriad of unsung geniuses—into *the Mantagna method* which speeded up Change in the body of man. Mantagna had given medicine the methods which caused accelerated growth of human flesh cells into more and more specialized cells. Men learned that superior men have superiorly specialized thought cells—and many more of them.

The result of his widely publicized work was a tremendous acceleration of what had been called "evolution", into an inconceivably rapid revolution in the nature and the powers of the race of man. But the Crusade cut off the work, leaving a few dozen supermen stranded among the fragments of a culture, surrounded by the crazed remnants of the race, all thirsting for the blood of every human being who had contributed to man's ability to kill other men—all hunting with the mighty weapons of the last world war for every scientist who had built those weapons.

With the disappearance of Mantagna the resistance of the world's technicals against the madness of the race that hunted them ceased.

THE LAST great figure of the Change, a woman whom the mad-

dened average un-changed people called "She" for want of a more accurate term to indicate the wonder of her superior brain and too-beautiful body—the last great victim of the Crusade—was entombed alive in her own subterranean laboratories, the entrances sealed—and over it was erected a vast black metal monolith. The leaders of the mobs of crazed humans made her the symbol of all their woes, and with the erection of the monolith over her living tomb, proclaimed the work of the Crusade ended, and man once more free of the terror of scientific warfare. Insanely they rejoiced, and danced and picniced and drank to the future about the completed tower of uncorrodable metal—not realizing in any way that that dark tower was but a symbol of man's prostration before Fear.

That monolith ushered in the age of darkness, of ignorance, of disease unchecked by the armies of medical men who had kept man healthy before the Crusade.

The Centuries passed, and the darkness of ignorance became profound over all earth. There were but three islands of hope—the Citadel of the Sons of Science, hidden and secret in the mountains of Kentucky; the tree-hidden domes of Mantagna's refuge in the jungle—and the legend that men told of the undying woman entombed beneath the black weight of the mighty monolith—monument to the fears of man—monument to the hatred of beauty of mob violence—symbol of the violence that had ended the progress of mankind. The centuries passed—

RISING beneath the shielding, carefully cultured gigantic flowering trees and the hiding, big-leaved vegetation, was the vast domed expanse of Mantagna's refuge. Within the central chamber of the series of domes, reared a crystal transparent

sphere. Within the sphere was Mantagna.

At the base of the sphere a thousand tortuously twining tentacular tubings spread out along the paths of his fortress into all of the many chambers of his ever-growing fortress. Each of these tubes bore to Mantagna some needed essence of life. Each bore a variant nutrient which his science of *cytoblastoma trophopathy* had developed from sheer necessity of staying alive in order to preserve his work for the future of man.

His cranium, after the centuries of struggle to stay alive, measured nearly nine feet across. He, like the retrogrades who peopled the earth now, had given up the count of the years. The limbs of his once magnificent body now lay enfeebled beneath the vast dome of his brain case, a caricature of man-form—great twisted bones and paralyzed muscles supported by a framework of metal.

Mantagna had long lost the power of movement. But he lived on, and planned for the day when again his way of life would sweep away the dust of ignorance and repetitive decay from the sad face of Mother Earth.

Set in the moist, glistening bulk of the dome of his skull were the two great tragic eyes of him; brooding, savagely planning, raging at the futile years of waiting, near to madness with the weight of the centuries and the acid of frustration.

Those two eyes blazed out upon a world that the war and the time of ignorance had brought even lower and more vile than the world his own work had revolutionized and set on the path to greatness from which the A-bomb had blasted the feet of men.

One of the last things Mantagna had learned of that history had been of the erection of the monolith over the sealed tomb of the woman men

called "She" for want of understanding what her violently active beauty and mighty wisdom meant to men.

Mantagna knew who she was, had once loved her, considered her the most successful exponent of his methods of life culture. In his way that was more thought than passion, he had loved and admired the swathe of power that she had cut through the lives of the men of the Change.

There was a strong bond between that sleeping sorceress of science beneath her dark monolith, and the waiting, no longer wholly human creature encased in his sphere of crystal barrier against time, the little myriad of motors pumping the fluids of life softly through his ancient veins.

SLOWLY, with his last energies concentrated in his increasingly useless hands, Mantagna had built his first mechanical servitor. With its help he had built the second. The third and the fourth came faster, and now no longer did his hands *need* movement. His robots served him, filled his tubes' reservoirs with carefully distilled essences of life—and year by year increased their numbers, ever more rapidly.

Now at last he was ready! His plans matured, and nothing was going to stop him from freeing the sorceress of the monolith to whom he was drawn by a bond greater than any other tie on earth. Those two titans of the Change understood each other, and if she still lived beneath that tower of dull metal above her living tomb, he would free her, did all mankind stand in the way!

Rank on rank his robot tanks waited, their ray-cannon pointing their electric eyes northward. Rank on rank the four limbed mechomen stood, waiting motionlessly for the day. His little automatic, self-thinking, rocket-

throwing land-warships stood waiting too, the main strength of his robot-built army of—robots.

On the morning of *the day*, out of that jungle retreat of the first near-immortal, the first great trophopathologist, the mightiest mind alive on earth—out of that scene of centuries of super-toil, rolled the fruit of his effort, the product of a super-plan that could not fail.

Northward, irresistibly rolling on, clanking onward on caterpillar treads, stalking onward on great metal stilts, machine minds fixed on their first objective—the release of the mind buried alive beneath the great black monolith.

The fresh-faced girl sighed as she lifted her eyes from the light-devouring, sky-reaching tower of the ancient monolith.

"It is like the weight of time itself," she mused to her just-acquired husband. "Such a place we pick to spend our first days together."

"It is the right place. Shunned of all others, who might press themselves upon our privacy, spoil our love with their ignorant unkindness. The woman buried beneath that tower of darkness was the greatest of all the wonderful beings of the Change. It was the saddest day of all earth's sad days when the hate and jealousy and brutal revolt-against-reason of retarded men crystalized about her into the Crusade that halted the ferment of the Change."

"The legends say that she *was* love, love made into wonderful flesh by the magic of the great men of the Change..." the girl mused, staring again at the great black monument—rising out of the slow roll of the sand dunes, cyclopean, jet-black, and somehow lovely in its austerity as a black jewel carved from the dark sorrowing heart of the night.

"No one made her. She made herself into superior life, as much greater than men as we know them as an angel is greater than a ghost. She used the new medical methods of the Change and developed them in her own way to greater heights. She is said, in some of the ancient books I have read, to have been irresistible in beauty, and completely incomprehensible in her thought. They were afraid of her, in the same way that a devil fears God. Yet they conquered their fear enough to seal her up in her bomb-proof laboratory, and then erect that thing over her tomb. That thing to me represents the craven soul of men as they are when fear has utterly conquered their natural goodness, *panic fear*. I call it *The Tower of Fear!*"

"SHE IS SAID to be still alive," murmured the girl, smiling a little at the man that she should mention such a foolish thought, such a wild old tale.

"If there is truth in such legends, maybe she will look out on our honeymoon and bless us with happiness, shower charms and magic upon us," said the man, Bill Madden, falling in with the girl's mood.

"There used to be a city here, didn't there, Bill?"

"When the dunes move, you can still see the ruins. For a long time after this was built the city remained, but at last the desert moved in..."

"She must have been some woman, to make them so afraid! Do you suppose the time will come when men can face her and her plans; will have the courage to understand and accept such superiority?"

Bill rolled over, his eyes on the girl's face, dreaming of men with courage. "Men whisper, nights, to each other, of the woman called She, buried still-living beneath this awful

weight. They whisper together of the mysterious and powerful life in her, so strong it could not die, but waits still until there will come a man who does not fear her who will release her. She was what we would be, if she had not been entombed here!"

"The city vanished," murmured Lea, the girl, "and the monument to her beauty, her power—remains! That seems such a wonderful thing!"

"Do you suppose she *has* spent all that time, lying there alive, spending those years in awful thought, slow terrible years of thinking, immovable, living but dead?" The girl's voice was husky with the awe of the possibility.

"She was human change, mounted on a steed of lightning, she was growth and rapidity and ecstasy of life-strength..." Bill was quoting from the old book he had read about the woman who would not die, whom all men feared to face—

"I think they feared her and entombed her because she made them feel so puny and little." Lea's face was so lovely in her seriousness that Bill kissed her, and a long moment of peace passed across the sands where they lay.

After a time Bill's voice went on in silence, speaking of things men talk of of when their thoughts are turned to the mighty past of the Change and the atom war and the Crusade that ended all change. "Not all men abandoned the methods that made her what she was, Lea. They say some of the great mediciners of the world built a hidden citadel somewhere in the mountains, and retired there. They say that sometimes today they are seen, in airplanes, or at night in the mountains—giant men in black clothing. They are supposed to be called The Sons of Science, and to be working to start the Change again. They say the Dictator, Philip Kopek, fears the Sons of Sci-

ence, and knows they could take the power away from him. But they are not ready..."

"I heard another story, about the first great scientist of all of them, what was his name?"

"Mantagna, he was called the father of the Change."

"Yes, he is supposed to be living, like She within the tomb here. Somewhere in the south he is hidden away, immortal and undying, and one day he will come out and make life wonderful for us all again."

"I GUESS such things are all old women's tales for the kids. There is no reason to believe life could last any longer for such people than for ourselves that I know."

The girl's eyes came from the dreaming and looking up at the black reach of the monolith, rested on Bill's face, softened and sweetened. She reached out and caressed his cheek.

"I believe you love that legend of She, you sound so sad when you say it cannot be true."

"I have dreamed of her, Lea. If I knew how, I would release her from that place. I cannot help believing in it, because I want it to be true. But it is so impossible to think that she could live beneath that weight."

The girl threw off the seriousness of their talk and sprang lithely to her feet, racing away across the bright sands toward the black base of the tower.

"Catch me if you can, slow-poke! I'm going to find the door of She's tomb, and go in and look and ask her how she controlled men to her will. Then you'll see who's boss!"

Bill jumped up and raced across the drifted sands after the fleeing girl. Her flying feet easily kept ahead of him. She came headlong against the dark buttress of changeless met-

al, and her two hands caught her momentum and shoved her body aside as Bill plunged after.

He caught her flying bronze hair as she turned, and they wrestled for a moment, falling to the sand and rolling in laughter and mimic ferocity. Suddenly Bill ceased to struggle. The girl raised her head, her eyes following his strange stare.

At the base of the vast column, there within a few feet of their faces, an opening showed! Far, far in their eyes followed the round gleam of polished substance. Somehow that opening was pregnant with wonder to them.

"There must have been a door there once. It's gone, and the sands have blown away lately, uncovering the opening. Do you suppose...?"

"That we may be the destined legendary ones who will release the Sorceress?" The girl's voice was husky, thrilling with excited wonder.

"I'm going in, you can wait or come along!" Bill decided, unsmiling, his brown square face serious with thought. "Just to see her, her tomb or her face or anything of her works—was once a sentence of death. Today—you and I can perhaps have what was once forbidden to everyone on earth!"

Excitedly they began to dig away the sand with their hands. When the hole was large enough, Bill slid his body within, and the girl followed.

"Lea, it is a stair, leading down! Take my hand, it gets darker."

TOGETHER, the two innocents of that ignorant time tip-toed down the stair to the Tomb of the legendary wizardess of that forgotten magic called science.

At the bottom of that long flight of stairs, their weight upon some ancient mechanism caused a light to flash into intolerable brightness. They crouched, frozen with fear. They did

not know about switches and electricity except from legends.

As they crouched in the glare of the light, from the top of the stair came a sound, the scrape of a foot. Bill Madden whirled, looking up to the far point of light that was their entry place. A figure was outlined black against the light.

"It's Hairy! The crazy thing is mad at me for marrying you, Bill, I just *know* he's followed us! Who *else* would it be?"

Their fear of the light forgotten in the new fear of the descending footsteps, the young lovers stood clasping hands, listening and peering.

"You are probably right, Lea. He always followed you about, hoping you would take him. And hating me. Now that we're married, he would be here for only one reason. And that reason worries me, for he must have a weapon."

"He always carries his dart gun with him. Now he'll use it, on you! Bill you can't *let* him!"

Bill looked about swiftly. At the far end of the chamber was an opening.

"Come on. We don't know what's down here, we'll run as long as there is any place to run to. When there's no way of escaping—I'll wait and jump him. Maybe I can get him before he gets me."

They passed quickly through the doorway, down a flight of stairs, down another and another. But now the seemingly endless stairs ended in a blank wall of rock. Bill stopped, looking desperately around. Here was no cover, and no way to avoid the creature, half man and half madness, who followed them. Lea had always been afraid of him. Bill knew why, well enough. He had killed men more than once, but there was little law anywhere now. Hairy James, who loved Lea like a dog, and hated all men like

a wolf hates man, and for the same reasons.

As they stood before the blank wall, listening to the stealthy pad of Hairy's feet descending toward them in the darkness, a dull creaking sound made them whirl again to the wall that had stopped their progress. It was lifting on time-eroded mechanical balances, as it had been built to do. But to them the hidden mechanism was pure magic, a magic of blessed escape from their pursuer.

Lea gasped, and Bill's mouth dropped open. Below was a garden, such a garden as neither of them had ever seen in all their lives. Exotic plants, some fragile, others sturdily solid as cactus; wide dropping blooms with great scarlet lips, hanging golden fruits and wide limbed trees—all lit with many scattered diamond-scintillant pillars of light upholding the terrible weight of all that monolith of dark cyclopean construction overhead above the sands they had left so short a time ago. So short a time, and yet their world had become so much less clear and plain to their minds. So many things they could not understand here, and their dull-witted pursuer still could be heard, slipping from step to step stealthily nearer.

BILL PULLED Lea through, and as they stepped down the last tall trio of steps, the stone of the doorway slowly lowered again.

"Fasten it some way, Bill! Stop him from opening it like we did!" Lea screamed in her fear at Bill, and he stooped to examine the base of the strange drooping door to see how it might be fastened.

At the side of the slab of stone that was the door a great lever projected along the wall. If he could prop that up, Bill saw the door would remain closed. He put his shoulder under it,

held it up. "Get a prop from somewhere, Lea. This will hold him!"

Lea left his side, searching through the weirdly alive underground garden, and neither of them had time to wonder at the marvel of the place. Suddenly Lea screamed! Bill whirled, to see what now threatened.

A thousand miles away, a rolling army of mechanisms equipped with the equivalent of thought crashed through a last barrier and spread out across the wild, half-peopled face of the continent. Before the rolling line of heedless might people ran screaming, climbing trees, throwing themselves into the rivers, crawling under the rude beds of their hovels.

The army of mechanical beings clanked on.

Back in the unpeopled forgotten green hell of jungle, the vast mind of Mantagna watched their progress on the telescreens, brooding impatiently over their slow progress due to the lack of roads fit to be called roads.

On the other side of the continent, two hundred of the Secret ones, in what they had thought was the last citadel of the forgotten sciences—heard the startling news of the advance of the mechanical army suddenly appearing from out of the jungle into what had been called Mexico. Their spy—babbling over his secret beamed radio transmitter—was incoherent, saying that the machines appeared to think!

One of the few remaining planes on earth rose into the air from their citadel, ordered to follow the weird army from afar and report constantly.

Bill saw that Lea was standing before a tall pillar of glass-like transparency, gazing at something within with wide eyes of horror and fear—and screaming without stopping. He could not leave the great lever

strength. Still she stood and waited for him to understand what he must, and poured out her power of Change upon him and his wife in the hope that they could finally comprehend what was needed for her release.

HIS EMINENCE, Lord Dictator of North America, Philip the Third, otherwise known as Philip Koppek, picked up the telegram from his desk where the orderly had lain it down.

"Army of strange machines crossing the Mexican desert. No men visible. Orders respectfully requested.

General James Branch
10608 Force, Ninth Route"

Lord Dictator lay down the message, trying to act as if it didn't matter. He figured he had about one week to get so far away no one would ever locate him. Machines, and an army of them! There hadn't been enough machines in operation at once to equip an army for a hundred years—or maybe two! He was hazy on times and dates and things.

He picked the telegram up again, and lit a match, watching the flame lick across the printing. It might save him a day, burning that thing. When that news became general knowledge, he wasn't going to have an army. They would be heading for the woods, and he wasn't going to let any grass grow under himself either. Dictators have enemies.

That was his first reaction. But after breakfast he felt better. He straightened his neck braid, rubbed his hands together, smiled at his young third wife across the table, who blushed and smiled back. He would have to give her more of his time, some way. She was an attractive child.

Those machines could mean only that the Secret Ones, the holders of the lost science of the past, were making

ing a bid for power. They had been beaten before, and they could be beaten again. Then he could stay in his comfort and his pomp and his power, there would be no need to flee. Some lives would be lost, but why worry. It wouldn't be his life.

So an army moved south that morning, to bar the path of the strange army of machines. There would be no rule of science if they could help it. Not on this earth.

They were equipped with horses, who dragged rusty field pieces and baggage carts of ammunition. Some of the men carried ancient rifles. Most of them carried the modern dart guns, that worked with compressed air. There was little good ammunition manufactured for the older rifles, and the army owned it all. An age of unrepair had ruined the roads.

Moving slowly, the army of the Dictator began to cross the great American desert toward the ancient monolith that held down all the ghosts of the past. Anyone could guess that the first move of the strangers would be to try to release the sorceress imprisoned beneath the tower of black weight. Did she not symbolize all the evils of wisdom that had been put down by the valiant crusaders so long ago? It was not a deduction that the strange army was heading for the tomb of She. It was simple and obvious fact. Everyone knew that the soul of the ancient magic was buried there, and that it would not live again until the tomb was opened.

While the mutually unknown armies of two great rulers converged upon the black tower of forgotten metal over the wizardess of the past...

BILL MADDEN began to hear the voice of the woman whom death had been unable to defeat. Soft as

the fingers of a ghost the meaning entered his mind from the bright energy flows about him. Soft and loving and dear as his mother's lullaby song, the thought of She flowed out to him, and he heard. Thought can convey mighty meanings in short packed sequences, and, listening, Bill opened the great cabinets beside the weird glass pillar that was Her coffin.

Within were vials of strange fluids, little bright mechanisms, an endless compact array of paraphernalia unknown to any other in the world but only Her. With that soft ghostly voice in his ears, Bill took out the little gleaming generator, attached the wires to the studs at the side of the pillar of glass, started the power throbbing through the shining wires encased in the glass. Then he poured the fluid of the great green vial into the open mouth of the graceful vase-like projection on the pillar. The soft voice ceased, and from the streaming radiance of the pillar began to flow greater and greater voices, the sound as of many beings growing into one, Her memories of the past great of Her time awakening in Her mind.

The green fluid dissolved the glass of her coffin swiftly, and at last the thing that Bill Madden had dreamed of as a child—the face and form of the wizardess She—was there before him with no barrier between. Weakly she stirred, then as the song of power from the little life force generator throbbed through the wires now bared by the dissolved plastic, and the pulsing field of its strengthening force throbbed through her body, she moved an arm, then advanced one long infinitely graceful leg, stood tottering, her hands outstretched looking like the fingers of eternity, so long, so pale and so very delicately indicative of the passage of time in their fine lines

of dessication. Bill sprang forward to catch her as she tottered, and Lea sprang to the other side, each taking one long emaciated arm over their shoulders.

She was taller by a foot than either of them, even in their newly acquired growth, and they led her slowly to where her eyes pointed, a pavilion-structure of marble in the garden.

Here she rested upon a marble couch; the color flowed back into her shrunken cheeks, the fine lines began to disappear from her skin. Blood was pulsing through her now; slowly the tide of life increased, and after a few minutes she again essayed to rise, and again they aided her. From a locked coffer of stone in the pavilion she took a vial of golden fluid, drank greedily and long, and the fire of her eyes flashed on them, miraculously inspiring them to worship. To each of them she gave a drink from the tall ewer, then replaced it in the coffer, locking it and again hanging the key around her neck.

An hour ticked by, and still they heard her mind, thinking, thinking—questioning their own minds and getting the facts of the world of today all straight before her.

Above them the forces of the Dictator gathered, surrounding the column of the black weight above with cannon and soldiers. Far to the south a great rolling dust cloud marked the speeding mechanicals pressing nearer.

AN UNNOTICED speck in the east was the plane of the Secret Ones, the pilot speaking into his microphone giving the Citadel minute by minute reports.

Off in the mountains of the hidden Citadel, the Secret Ones gathered their power. They knew they must strike

now—before the issue of this struggle was decided and some other had seized the power they had planned upon possessing for so long.

Out of the citadel rolled wave after wave of tanks, and gathered on their camouflaged air fields a thousand newly constructed planes, very different from the planes of the days of the Change—waited the word to plunge into the sky. The two hundred old men watched their followers leave.

Of all this the ancient brain of Mantagna, waiting alone in his jungle stronghold, knew nothing. His tele-screens told him only what the electrical eyes of his mechanical juggernauts saw. He heard only the electrical substitute for thought which passed through the mechanical minds of his creations. On rolled the mighty robot army, and even Mantagna's time-weary soul thrilled a little to the resistless appearance of power they created. Soon, soon, the centuries of darkness would be lifted, and once again men would benefit from the secrets of life-growth he had developed.

Soon, soon, there would come to him the released sorceress of the Change, the woman who had taken his methods and outstripped him in their application to the enrichment of her own body's power, of her own fecund appreciation of the pleasures of life—the woman whose work had pioneered beyond the limits set by himself—on and on into the very borders of Godhead and immortality.

Soon the mighty power of life she had created deathless within herself would be freed once again, and he himself would learn those things which for lack of knowing had doomed him to an eternity of motionless slow decay beneath the vast weight of his overgrown brain case.

UNNOTICED by the three figures in the marble pavilion of the subterranean garden, the metal bar which Lea had placed beneath the great weighted lever of the automatic doorway sank slowly into the soft earth of the garden bed. Inch by inch it sank, slowly tipped and at last toppled over.

Outside the great door, the hairy dark-faced half-man of the retrogrades moved impatiently, his foot pressed the last step of the stair, the door before him began to slowly lift, creaking upward. Unnoticed, he darted in; the great door sank again into place.

The hairy, burly figure darted left into the screening leaves, began to move toward the pavilion where the sound of Lea's voice, excitedly questioning, was to him a clear beacon of desire. The deeper tones of Bill Madden's answering voice reached him. He scowled deeply as the rage engendered by his jealousy boiled in his blood. From his belt he tugged the big dart-pistol which was the one tool he knew well how to use, his only asset in the dim world of his ignorance.

Crouching, he scuttled closer and closer, stopping to look at the three figures over the sights of his gun, scuttling softly closer to get clear of the obscuring leaf barriers between him and his hated objective.

Bill and Lea were engrossed, the clear, enchanting antique-accented words of the immortal woman spinning swiftly for them a picture of the world as it would be if she once again was able to lead men along the paths she had pioneered into the mysteries of the causes of life-change.

Her own sensitive mind was engrossed with the two charming innocent lovers who had inadvertently rescued her from her living death of waiting. How good, and what fine material was still alive with them for

her wizardry to build upon! If the race of man had decayed no more than had these... what might yet be done! Glittering fancies born of the imagined possibility of full development of the race under her guiding hands sprang swift, one after another, through her newly awakened imagination, her sensual fecund cells of thought filling out the ghosts of vision with pulsing, desiring, passionate, colorful life—trained and growing into such progress as had never been before.

Hairy James lifted the dart gun—he had silently pumped the air chamber to full pressure. First the man, then this strange, lean gigantic woman—and he would be unopposed in his possession of Lea. Here in this hidden garden he could have his will of her, and when he was weary of her—what simpler than to leave her here where no one ever entered. Locked in here, she would be his possession for as long as pleased him. Carefully he drew the sights to a line upon Bill Madden's chest, his finger tightening on the trigger.

OVERHEAD, the ancient ordnance of Dictator Philip Kopek the Third swiveled, tilted, and the cannoneers waited the word. The officer's hand swung down, cutting the air, and along the line of guns the lanyards jerked, a thunder and flame and shaking recoil ran along the curved front. The shells sped skyward, arced down toward the gleaming line of caterpillar-treaded strange machinery which had so mysteriously sped across the country out of nowhere.

The salvo was badly aimed, the exploding shells plowed a long line of shell-holes before the advancing weight of motored mechanical minds.

Automatically the encased electronic brains reacted, the electric eyes swept the landscape, and leaping from their

squat turrets came ray after ray, sweeping in deadly arcs of constantly corrected all-covering pattern across the intervening space, swept nearer to the Dictator's line of ancient guns and waiting cavalry. As the hissing beams, the tracks of them leaving long streaming lines of molten glass across the sands, reached the first living matter and burnt it to smoking collapsed crisps of cooked meat about their weapons, the "army" of the ruler of North America took to its heels, scattered in complete and sudden route before the stolidly advancing, unharmed array of deadly power.

Watching his telescreens, the great eyes of Mantagna filled with tears of amusement at their fight, tears that were suddenly not amusement but sadness that the once mighty civilization of the continent had sunk to this comic-opera masquerade of a military organization.

On the one telescreen that still functioned in his palace, the building that had once been the United States Mint, Philip Kopek watched the flight of his men, turned away to pack his bags. He would take mountaineer's costume and the two gasoline cars that were his prized possessions, and head for the hunting lodge in Canada. Speed would be his only safety, he knew. He must keep ahead of the news of defeat and change, or his enemies would intercept him before he reached hiding. The store of ancient gasoline he had been hoarding for twenty years, since it had been found.

The line of robot machines clanked on toward the dark monolith. The motionless form of Mantagna brooded with his great tragic eyes upon the vast dark needle of night and weight and sorrow showing now before the sending eyes of his robots.

AND UP from the hidden airfields of the Secret Ones flashed a

thousand bright-winged deadly bombing planes—to intercept the threat that had wiped out the puppet ruler they had allowed to exist, for his existence kept their own power secret by his inept lack of curiosity—guarded them for recurrence of the ancient madness of crusade against science which had wiped out their forefathers.

This newly appeared power would learn to reckon with their own claims upon the rule of the continent. Whoever they were, the unseen men within those clanking monsters of unknown construction, they would respect the existence of the Secret Ones.

Too long had they planned to possess the science entombed beneath the black monolith to let it fall into alien hands now. It was the one great repository of knowledge from the past—though none of the descendants of the hidden men of science believed in the legend of the undying woman within the tomb. If anyone was going to open that ancient storehouse, if anyone was going to violate that shrine of the wisdom of the past—it would be themselves. Too long had they lain hidden and waiting. Their hour had struck.

The Sons of Science, as the Secret Ones' followers called themselves, were big men. The methods of the medical wizard Mantagna, though incompletely known to their ancestors, had yet been searched out the ruins after the great Crusade, borne into hiding, there studied and brought partially into use. The result had been that their size and rate of growth, their adaptability, their rate of evolution, had been accelerated, and generations of this development had produced a race of men eight feet in height, with wide high foreheads, fine muscles, clean health, keen active minds of superior ability.

They had studied the past, and had developed their own new science within their citadel hidden in the mountains of what had been Kentucky. There, in the "Smokies", where civilization had never penetrated deeply even at its height, they had built up a new race of men, few in number, but powerful in their superior abilities. Proud, they had looked down upon their retrograde fellow men sprawled in chaotic ignorance across the ruined face of the earth.

Their flight into battle was an ecstatic release of their pent-up energies, and the gleaming planes were impossible to control at first as they soared and wheeled over the citadel, then rocketed off toward the great desert where the monolith brooded darkly over the drifting sands of the past.

But soon their first joy in too long action settled into anticipation, and the long columns formed precision in the sky—sped on to battle with the enemy whom they did not know.

THE EARTH rocked and shuddered under the bombs of the first wave, the tall monolith tilted in its age-old cradle.

Watching, Mantagna's great eyes filled with horror and the accumulated frustration of his time-worn soul was a horror in his tragic distorted face as he saw the bombs curve down, down—and burst in a dreadful earth-rocking blast about his centuries of effort—his hope for earth's freedom—his so-long-labored-over mechanicals. The huge beetle-like bodies were hurled right and left, turned turtle, their treads spinning futilely. Into his ears came the strange eerie keening of metal minds feeling electric pain of shock. The scalding tears streamed down his ruined ancient face as he saw the work of his centuries of te-

nacious planning wrecked in one blow. The long rays of his robot servants lashed upward automatically, accurate as clockwork, centering the whirling motes far above and sending them spinning down in great hurtling spirals of flame—falling—falling—the Sons of Science, destroyed by the first of the great medical discoverers of the secrets of life.

Mantagna cudgled his vast weary brain for the answer to the enigma... Who were these attackers? How could he stop the battle and come to terms when they gave him no opportunity?

AS HAIRY JAMES pressed the trigger of his dart gun, the first shock of the exploding bombs shuddered through the caverns, and the dart flashed between She and Bill, caroming off the marble of the seat. Bill leaped to his feet, his eyes darting for the source of the dart. He had about one full second, long enough for their attacker to pump up the reservoir of his air pistol. A slight ripple in the mass of leaves led him to plunge into the shrubbery on the chance that he could come to grips with the half-man before he fired again and more accurately.

The creature rose up ahead of him, one hand pumping desperately at the lever in the butt of the gun. Bill left his feet in a long dive; his arms clutched the waist of the half-man, they rolled together among the gnarled roots of the subterranean garden's plants. The soft humus of the centuries-old undisturbed leaf mould coated the two struggling bodies with black. Over and over they rolled, Bill desperately trying to get a hammerlock on the strong arm of Hairy, his two hands clasping the wrist while with his elbow he applied leverage, forcing the arm back and around.

Hairy crashed his fist again and

again into Bill's face, surging back, arching his back desperately to disengage his twisted arm. Bill hung like a leech, forcing the arm around steadily, bit by bit, and taking his punishment with snarls of pure rage.

Tall, striding now with an effortless grace, the freed sorceress of the past came to the two struggling bodies. Her eyes blazed, her anger at the unprovoked attack was the same anger that had scalded her mind with futile rage at the stupidity of those who had entombed her—in a time that seemed to her but days ago—so swiftly had the dreaming unconscious suspension of life passed for her. She remembered how she had humbled herself to obtain even the privilege of a living death, constructing the apparatus with her own hurried hands before their permission was revoked.

The strange, powerful female from the period of the Change, bending over the struggling men, made a sudden gesture with her eloquent hands. Her eyes dilated, Bill caught a glimpse of her angry eyes, and they seemed to grow, blotting out her contorted yet glorious face as he felt the soft soil fall away from beneath him. He threw his legs about, reaching for a fulcrum—to find himself floating in the air—floating! Surprise and unbelief, wonder—made his arms relax their grasp, and Hairy floated away from him as he slammed a blow at his face. There they floated, ten feet from the ground—helpless. The strange woman made a gesture again, and Bill descended slowly, his feet resting once more on the earth.

"Just what do you call that kind of magic?" asked Bill, with astounded eyes upon the now calm face of his newly awakened friend.

"IT WAS ONCE called psychic levitation, and it is an example of

the way that all force and energy responds to thought—if you know how to think.” She smiled that infinitely enchanting smile of hers. Bill’s poor head spun with the fascination of the vital energy of womanhood that flooded from her every glance... Lea took his arm, laughing up at him.

“You looked so foolish, floating like that. You couldn’t imagine what had happened!”

Bill bent and picked up Hairy’s dart gun, glanced at the magazine of tiny darts, filled with venom, he knew. A venom called curare, made from roots, by the bands of wild people who roamed outside the cities of the dying world.

As they stood listening to the thunder and shuddering shocks of the bombs overhead, a shock vastly greater sent great cracks along the time-eaten walls of the garden, pieces of rock fell from the roof; with a roar, the whole cavern about them collapsed. Only darkness and silence and tumbled shards and fragments marked the place where the ancient time-sheltered garden of past wonder had for so many centuries resisted all hazard.

The vast black needle of the monolith, tilted by a base hit from a bomb, had tipped, gradually slanting more and more as the battle progressed from sharp-cut attack and defense to an all-out whirl of incomprehensible swift action.

At last, the supports gradually weakened by the recurring explosions, the vast needle of black forgotten metal had leaned far over, crashed downward, falling along the lines of embattled tank-robots like the body of a God of Darkness, fallen...

Mantagna, watching the battle helplessly, immovable in his vast protective sphere, saw the slowly tilting terrible weight of the monolith at last crash down upon the earth above the

crypts he knew lay beneath—and his great tragic eyes wept, his paralyzed fingers twitched convulsively, great sobs rent the silent air of his crystal haven.

The mind that he hoped still lived beneath that tower to ignorance, that mind he had hoped might free him from his prison of helplessness with her knowledge of the life-methods he had pioneered and she had developed—that mind must be at last irrevocably destroyed.

Now he threw himself into guiding the robot army in savage efficient maneuvers, the rage that had been building in his striving mind for so long flooded him, rage against the mad destructive nature of man. Whoever these attackers might be, they would pay for destroying the last great mind of the people of the Change.

So the Sons of Science found their proud armada of shining battle planes shot out of the air. Days later, when the first waves of their tank forces reached the scene, they found them no less futile against the masterly handling of the strange unpeopled steadily advancing line of machines, trundling on and on, seemingly without aim or reason, bent only on seeking out opposition and destroying it.

THE PEOPLE of the citadel decided to again draw their cloak of hidden camouflage about their existence; again the covers of growing shrubbery were drawn over their airfields, and the war tanks they had sent out were abandoned, the drivers picked up by planes and flown away from the vision of Mantagna’s telecreens.

Now the might of his robot army turned, retraced their tracks, gathered

about the fallen monolith upon the desert.

A great digging machine began to revolve its blades, boring a passage into the sand, throwing a great spout of dust and flying earth from its rear. Down, down, delicate instruments reaching ahead with mechanical senses.

With fatalistic sorrow mingling with wild impossible hope, Mantagna's great eyes watched the screens, noting each tiny variation of temperature and penetrative ray rebound, noting the density of the mass ahead of the mechanical mole. Little electric eyes passed and repassed their vision beams through all the rock ahead, following the lines of lesser resistance that marked the fragment filled crevices of the collapsed tunnels.

The great blades of the digger bit nearer and nearer to the center of the fallen cavity that had housed the living sepulchre of She. Nearer and nearer to the three silent bodies waiting there. Waiting...

The woman whose very name had been lost by the centuries stirred, screamed as her broken limbs sent great shocks of pain into her super-sensitive nerve centers. Then her eyes gathered sanity out of the familiar darkness, her psychic powers asserted themselves, and the rocks that had crushed down about them lifted—her limbs were free!

Watching the scene, old Mantagna's vast tired eyes widened to still greater expanse as he saw the big rock fragments one by one lift and float free—one by one tug release and slowly mount into the sky—mount and pause there, waiting!

Some wild surmise in his mind raised the flame of the impossible hope in his breast. His thought directed the robots above, and a questing beam of thought-communicative

energy swept penetrating through all the subrock of the cradle of the fallen monolith.

THE SOFT sweet voice of She came to him with a shock of delight that nearly stopped his worn and shriveled heart. But the leaping pulse of synthetic nutrients in the plastic tubes that were now his veins kept the life in the mind that had once been man.

"Who are you, digging and searching this tomb that has been my home?"

"I am Mantagna, and if you are She whom I seek, you need to hear no more to know all there is to know about me." Mantagna's mind answered over the thought conductive beams, though the wild hope in his heart he was sure could be only the illusions of madness.

The glad, utterly human cry with which his thought was greeted by the mind at the end of the questing beam told Mantagna all the glad wild wonderful truth he had been seeking so long. The woman lived—

"Oh, my girl, my own dear daughter...the time has been so terrible. Little Sue, grown beyond me, Sue, I have needed you so much! Come to me, daughter."

"I will come, father, I will come. Wait, oh wait!"

So it was that the death of two lovers brought to the world of defeat and chaos again the glad days of the Golden Age, and the obelisk of ancient metal stands upright once again—and upon it is a tablet of gold, engraved with these words:

"This is a monument to Bill and Lea, lovers who ushered into life the age of happiness in which you live. Their courage and their death gave you life worth having."

THE END



THE CLUB HOUSE

By Rog Phillips

I'VE JUST acquired a personal interest in that new wonder drug, Cortisone. I'm having to take it. I'm having to take other things too, but the Cortisone Acetate is the interesting one.

The Cortisone Acetate molecule is an interesting little gadget, as complex in structure as the insides of the television set in your living room. Its components are a little more standardized, consisting of three types of units analogous to the vacuum tubes and resistances and condensers of the electronic circuit, but coming in single sizes rather than dozens of assorted ones.

Take the unit designated by the letter *O*. There are only six of them in the Cortisone gadget-molecule. They have two little "hooks" on them that connect them to the rest of the circuit. The unit designated by *C* is more complex. It has four prongs like a vacuum tube. Some of the *C* units have the four prongs connected to four different elements of the gadget. Others have a couple hooked on, and a couple left unconnected. The *H* units are the simplest, with only one connecting hook. There are 23 *C* units and 30 *H* units with those 6 *O* units.

In the terminology of chemistry they are a molecule having an atomic weight of 402.47. The molecule is made up entirely of oxygen, hydrogen and carbon. Nothing else. But...

It says in the little brochure, "Warning: Cortisone acetate is a potent hormonal substance influencing

the biochemical behavior of most, if not all, tissues of the body."

On the molecular level it's a gadget—like a tv set. (Warning: the tv set is a potent entertainment substance influencing the social behavior of most, if not all, homes of the nation.)

"The effect of cortisone on water and salt metabolism does not appear to be consistent." The brochure goes on to say in more technical terms that sometimes it will make the tissues store up water and salt instead of releasing them in the form of perspiration, and then it's necessary to take corrective measures, like cutting down on salt intake.

(The effect of tv on treatment of house guests does not appear to be consistent. Sometimes your host meets you at the door only long enough to say hello and scoot back to the tv program until you are ready to leave, when he will say, "Nice having you. Drop in again.")

That's enough analogy to give you the idea. Cortisone is entering the economy of my body structure in measured doses. Tv sets are being sold to the public in steady doses. As the cortisone gadgets get set up in more and more cells of my body, they are altering the daily living habits of those cells, sometimes to good advantage, sometimes in potentially dangerous ways. Tv sets are entering homes. People get glued to them—and ignore other social outlets, but also get a better insight into national politics and wrestling.

There are certain malfunctions of my body that have grown to such proportions that they threaten to destroy it. Vapors from fresh paint, cleaning fluid, and more and more things, are entering my body through my skin, and going to my sinus cavities, carried by body chemicals which pile up there in gummy fluids that block sinus passages. This has been going on for several years.

The current crisis that precipitated things was the blocking of a small sinus cavity just under the left half of my brain, right behind the left inner ear. Totally blocked, it continued its function of collecting fluids with offending substances in them. The water in those fluids reabsorbed, leaving a thicker and thicker mass. The cavity distended, pressing against the inner ear and producing pain. The pain became so intense that continual heavy use of codeine was necessary, twenty-four hours a day. An unsuccessful attempt was made to open the long narrow passage to the nasal cavity.

At the Loma Linda Hospital they tried something a little different, I think. I can only surmise. A sort of cocaine-shock method as far into the passage as they could get. All I know is that two doctors and a nurse were working over me and I was wondering what had happened. One of the doctors encouragingly told me I had had a shot of "snow" that a hophead would have given his right arm and all his money to experience.

It didn't fix things up. Maybe they didn't expect it to all at once. But it was then they began what is known as *Cortisone therapy*. The gradual distribution throughout my chemical system of little molecular gadgets. Cortisone acetate molecules. Those gadgets should get the cells of my body functioning in the way they were intended to function, refusing to pick up

substances harmful to the entire system. Or...the cell may take too much interest in this new gadget molecule, and forget to throw out excess water and salt, or absentmindedly eliminate too much nitrogen, or do some other crazy thing that will have to be corrected.

I couldn't help seeing the analogy of tv. A tv set in one home (cell) makes it more cognizant of the functioning of the nation. In another home it makes the family ignore everything else, with everyone glued to the tv screen. Children don't study their lessons. Grown people become dependent on the tv and are helpless if it stops bringing its entertainment. They've forgotten how to have fun.

And I couldn't help seeing the final parallel. Our United States is more closely analogous to the human body than any other nation in the world. It goes further than that, though. Introducing cortisone into my system is merely an artificial redirection of cell function to previous and partly forgotten process. A sudden swing to an old style, in a way.

The tv set, as a molecular gadget distributed in steady doses until it is a necessary part of the national metabolism, is a mutational step. We had the automobile hormone shot into the system over a period of half a century. It created a growing network of highways over which previously stationary cells (people) could move quickly and at will. You yourself can quickly follow in your mind's eye the alterations the automobile produced on the national organism. We had the simpler communications unit, the radio, injected. Now has come the more complex television.

We can't foresee all the minor and major changes in the national organism and the way it functions, as they will be influenced by any one new hor-

monal type gadget. But we can see a certain pattern that each new one makes stronger and more ingrained in the system.

We are knitting together into a dynamic organism that is a distinct step away from the normal life course of nations in the past. We are doing it in a way we can't see as yet, and can't understand. And certainly no other nation can understand it either.

We write and read our stories of future civilizations which are merely extrapolations of the present, and I don't believe we *as yet* have any real inkling of what is going to rise out of what is going on in the United State, and has been going on for the past half century.

We can call it the mechanical age, the electrical era, the atomic age. Those are terms that grope for but miss what is really happening, I think.

Other peoples are aware that we are different, but can't pin down what it is, either for adoption into their own national metabolism, or for coping with on an international level. They are, to put it bluntly, confused about us. Even Russia is.

And what about ourselves? This is the point I've been leading up to. As a mutant civilization-organism we are functioning. That is true. But so far that functioning is an instinctive thing, an unconscious thing. We have not as yet arrived at a stage of conscious direction.

We as a nation are something like a ten-year-old Joe Louis, or a fifteen-year-old Einstein. Or perhaps a six-year-old Harry Truman. The Secret Service didn't assign men to guard Truman when he went to grade school. Joe Louis at the age of six didn't know that he would be one of the greatest of world champs. Einstein at the age of ten didn't know he would transform the world with the products

of his thought processes.

In the same way, I believe, not even the cleverest of us could begin to foresee what we will be in another half century. It will make pikers of every science-fiction author of today and yesterday, however fantastic his ideas.

But more, it will be something integrated and alive. It will be as unlike anything we could guess about it as a blueprint is unlike a house that is lived in.

It is the kind of thing I like to approach, when I can, in my stories. Something too great for present comprehension, except vaguely and from afar, as some part of the whole is brought obscurely through the haze. The haze that is not a part of what we vaguely see, but rather is a part of our minds, a cataract in our prophetic eye.

* * *

And now to the fanzines. Not many in August, the lazy month...

GHUVNA: 10c; Joe Fillinger Jr., 148 Landon St., Buffalo 8, N.Y., Charlie Momberger co-editing. First-rate mimeography, and seventy pages! If you send Joe a dime he will lose money. It costs him that much for the paper alone. I guess that's his business, though. He's typical of fan publishers. They expect to lose money. They devote a lot of their spare time to their hobby, and love it.

"Disposal Unit", by Harold D. Kaiser, is a very fine idea story. So good, in fact, that I'm tempted to get an idea for a story from it.

I opened the zine at random to page 39 and glanced at another story, "Dixie Moonshine", by Toby Duane and Al Leverenz, and discovered I couldn't stop until I'd read the whole story.

If there wasn't another thing in the zine it would be worth more than a dime. There's plenty more, and I haven't mentioned the *piece de resistance*, the editorial by Joe Fillinger, reporting his experiences in taking the pre-induction physical examination for the armed forces. He also explains why you get a gold mine of material in this issue of *Ghuvna*. Not knowing when another issue will be possible, they loaded everything into one issue.

* * *

FANTASTIC WORLDS: quarterly, first issue, 25c; Edward W. Ludwig, 1942 Telegraph Ave., Stockton, Calif. Ed has been a long time crystallizing his amateur magazine, and it lives up to advance notices. More, it shows that Ed has the ability to make it a growing magazine, each issue an improvement over the last. He has one thing already that I haven't seen in other fanzines—paid ads by Lin-graphone, a professional writing school, and a couple of other companies that don't ordinarily place ads in fanzines.

In this issue are three very good stories. "All Cremated Equal" by Forrest J. Ackerman, "The Door" by Michael Storm, and "The Soul Seeker" by Toby Duane. The line-up for future issues includes stories by Kris Neville, Bob Tucker, E. Everett Evans, William F. Temple, and others.

The articles seem to have a definite pattern to them: to get you acquainted with various authors and publishers. In this issue it's Gene Hunter, a new writer who lives in Hawaii, and August Derleth, publisher. In a future issue Ed has scheduled "The Ackerman Story" by Sam Sackett.

Ed Ludwig is a writer himself. How about publishing one of your own stories in your zine, Ed?

* * *

OOPSLA: 10c; Gregg Calkins, 761 Oakley St., Salt Lake City, Utah. The sixth issue, and each has been right on time, six weeks apart. Good solid articles of fannish interest, fan fiction and fan articles with a definite fannish slant. That states the policy of this zine.

"The Jaundiced Eye" by Ken Beale is what I would call a good column along the lines of some of the national news columns, slightly cynical, factual, somewhat controversial, and definitely interesting.

"Dear Alice" by Shelby Vick is still going strong. It's a pleasingly absurd take-off on stf.

"Vicious Circle" by Norman G. Browne is a time-travel story that has a wonderful concept. Time-travel busses that take people of the future back to the very moment Hugo Gernsback was bringing out the first issue of *Amazing Stories*, so people can see him.

In "The Editor Speaks" Gregg tells off *Rhodomagnetic Digest* for its snobbish attitude. By the way, Don Fabun hasn't sent me a review copy of *Rhodo* lately. Why not, Don?

Oopsla is a good general fanzine. You'll like it. I do. An eye-catching cover illo by Richard Z. Ward, too.

* * *

FANTASY-TIMES: 10c; twice a month;

James V. Taurasi, 137-03 Thirty-second Ave., Flushing 54, N.Y. Back in the old mimeographed format this time for some reason not stated. But, mimeo or photo-off-set, it's still the same top newzzine.

"Battle of the Borders" is a special feature in this first August issue, delving into why several of the pocket-size stf mags on the stands seem to be aping each other's cover setup. Lester del Ray in a letter to Mr. Taurasi reproduced there states that the format isn't brand new with *Galaxy*. Magazines with exactly the same cover bleed were on the stands twelve or fifteen years ago. Further, when you have magazines all going to the same size they have the same problems to overcome, and generally overcome them in the same way. News distributors influence that a lot. They want rows of similar-appearing magazines. They push those and shove the unique-appearing one off in a corner. James Taurasi invites his readers to think up cover formats for the digest-size stf magazine that don't call for this over-worked format and send them into F-T, and he'll publish the best of them.

Also reported is the formation of SFWA (Science-Fantasy Writers of America) at the Fifth Annual SouWestercon in San Diego late in June. About five hundred stf and fantasy writers will be asked to consider joining the organization. If the expected percentage of them join, this will make this writers' group one of the most powerful in the world. The three aims of the SFWA are: (1) To improve the financial status of stf writers by bettering the conditions of rights and rates, (2) To enable stf writers to know each other and to compare their work and experience in the field, and (3) By publicity, awards, and other methods of promotion to improve the prestige and standing in the eyes of the general public. Any of you who are professional writers and interested in this can get more information by writing to the temporary secretary, Forrest J. Ackerman, 915 S. Sherbourne Dr., Los Angeles 35, Calif.

Dozens of other current items are reported, including the activities of Clarke, who was given the Little Invisible Man award for '52 at a banquet in Frisco at the Elves, Gnomes, etc., Society.

* * *

SCIENCE FANTASY BULLETIN: formerly Bulletin of the Cleveland Science Fiction Society; 15c; Harlan Ellison, 12701 Shaker Blvd., Apt. 616, Cleveland, Ohio. The editorial announces that the zine is henceforth an independent project. This will of course mean consistent high quality which comes from individual responsibility.

A second editorial discusses the so-called war between *Galaxy* and *Astounding*. More of this similarity of cover stuff. I don't see any war going on.

ELECTRONIC REPRODUCTION PROHIBITED

Oh, boy! A Lee Hoffman story, "The 1954 Midwestcon", a wonderful satire, with illustrations of "fans" who "attended". And there's something new and valuable—"Story Recommendations", which lists the stories in current prozines that are considered best, so you can get an over-all picture of where the best are to be found each month.

On almost every page are really good fannish cartoons, with distinctly humanoid robots and bems. More book reviews and better written than I've seen anywhere else. Seven and a half pages of them!

Several good bits of fiction, too, including another of Karl Chanz's experimental stf parables. This one, "The Tortured", is a short mood piece divorced from specific crystalization, so that each reader gets a different impression of what it's about. That doesn't sound good, but it definitely is.

A long letter department, too, makes for interesting reading. If you're a newcomer to stf you would especially enjoy this zine, for its definite fannish quality and its tone of invitation to get better acquainted.

* * *

STF TRADER: 10c; 4/25c; K. Martin Carlson, 1028 3rd Ave. So., Moorhead, Minn. Just like old times. Carlson used to publish it. He turned it over to Jack Irwin for several years, Jack's in the army now, so Carlson has taken it over again. Bob Farnham of Dalton, Georgia, will help him on it.

The poor man's tradazine—you can find items in its pages you want, and trade books or back-issue magazines for them—or buy them outright. Ads are very reasonable. 25c for a quarter page, a dollar for a full page.

* * *

RENAISSANCE: 10c; Number 4 issue; published irregularly by Joseph Semenovitch, 40-14 10th St., Long Island City 1, N.Y. With him is Warren Freiberg, 5018 W. 18th St., Cicero 50, Ill.

I'd like to ask a favor of you. These two boys are trying hard to put out a good fanzine. They're eager to do the work. Somehow they haven't clicked yet. They need subscribers and they need more contributors. They're getting discouraged. Send them a dime, and when you get their zine send them a letter after you read it. That's very little, and it will go far to make them happy.

They shouldn't be discouraged over this issue, though. It contains three very good stories, and three articles that any fanzine would be glad to get.

"Death of an Empire" by Steven R. Paul has an idea worthy of a longer story, but is very well handled in this short length.

"Madcap" by George T. Wetzel would have been bought by *Weird Tales* if it had been submitted there. "Last Act of Flesh" by Larry Saunders concerns a future social system and its breakup, and is good writing.

"A Column?" by Francis Bordna is one of the best fan gossip columns I have ever seen.

Here is a fanzine you will definitely enjoy, and it will get better fast with the encouragement of a dime and a kind word. How about it?

* * *

BREVZINE: 10c; Warren Freiburg, 5018 W. 18th St., Cicero 50, Illinois. In format it's something I really like. Mimeographed, and with pages one fourth the regular size, neatly stapled so that it makes a compact pocket-size book of fifty pages. A lot of work went into making it like that. It's a sort of fan *Quick* magazine.

Stories and articles by S. R. Paul, George Wetzel, D. Hammond, R. Billings, Ted White, J. Semenovitch, Hal Rempire, and Henry Ebel. A front cover by Ted White and a back cover by Alfred Freiberg. And good interior artwork. You'll enjoy it.

* * *

NOTE: free at present; Robert Peatrowsky, Box 634, Norfolk, Nebraska. A letter comes with it from Bob, saying, "Enclosed is a copy of my fanzine *Mote* which I would like to have you review. I would appreciate it if you would also mention that *Mote* needs material. Although this first issue is only an eight-pager, I hope to build up the size with future issues—if I can get the material. It will be put out bimonthly (I hope) and, for the present at least, will be distributed free to anyone interested. Thanks..."

"Where's the Science in Science Fiction?" by Gregg Calkins is very good. It seems to be a straight article—until you read the last paragraph, when it becomes obvious it was "written" by someone on another planet!

I think he named his fanzine *Mote* just so he could call his editorial "Re; Mote!"

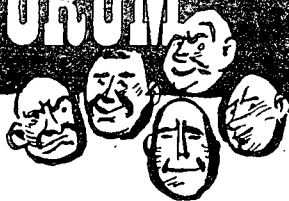
STALKER BULLETIN:

This is a letter-size, offset sheet put out by James Harvin from the Stalker Bookshop at 199 Washington Street in Newark, New Jersey. Harvin's ambition is to give stf fans more for their money than anybody else. A worthy ambition. Why don't you send for Jimmy's zine and see what he has to offer in his bookshop? It's free.

That's all....

ROG PHILLIPS

THE READER'S FORUM



LONG LETTER

Dear Howard:

In the Septish of AS was a letter from Benny Sodek stating: "I think it (The Club House) should be restricted to fan news and such, and not to personal 'editorials' such as Rog Phillips has been writing." I agree with him wholeheartedly. Phillips' editorial in the Novish was totally uninteresting.

And now to the Reader's Forum:

Albert L. Chandra: My second great interest is in geography, especially maps. I've always thought that Demerara was the same as British Guiana. Thanks for the confirmation.

Hey! Perez! Don't be so fragmentary. Personally I think Milt Lesser has done much better than his duology in AS.

L. Touzinsky, on page 156, stated: "I imagine Mr. Hinton will appreciate the non-sexy cover on the Sept. issue." I suppose it's how you look at it. Me? I don't mind...much.

Good luck with your history, Larry.

Oh, Mrs. Halliday. Aren't you a little off track? "Journey to Barkut" was published in STARTLING STORIES. I'm amazed that you would let an error like that pass uncorrected.

I'll likely become very unpopular for saying this, but here goes. "The Land Beyond the Lens", "The Golden Gods", and "The Return of Michael Flannigan" by Bloodstone, were three of the sorriest pieces of sf I've ever seen. I'm not saying I didn't enjoy them. I can enjoy anything that bears the label "sf", if I try hard enough. The first two were the best of the three. "R of M F" was very poorly written. I received the impression that Bloodstone knew his climax was strong and that he jumbled the central portion so he could get to that wonderful (?) climax sooner. All in all, Bloodstone is a sloppy writer. His plots are under-developed. But he is the first I've seen who gave cosmic rays such a prominent part in his plots.

Anyone agree? Disagree? Come on, Ralph Shouts, let's be enemies.

Say, all you Texans. I'm organizing the Texas S-F Census League. Please write to me inclosing the following information:

Name, address; length of fandomship (approximate), and fan activities. One of my aims is to calculate the rate of fandomship. I'm counting on your cooperation. Also, Texfen, if you haven't already done so, write to Bobby Warner, P. O. Box 63, Bessmay, Texas, or R. J. Banks, 111 South 15th Street, Corsicana, Texas, for info on the "Texas Fan Club".

Two more complaints before I stop:

In the October AS you stated that the next installment would be the last (I'm talking about "Master of the Universe"). But in the Novish you say there will be another. What happened?

On the content page you state: "Front cover by Leo Ramon Summers". Clearly written on the cover is the name Walter Popp. Again, what happened?

I'm afraid I'm going to have to make that three. What happened to "Master of the Universe" in the September issue of AS? I can't find it.

Lee E. Huddleston
Route 1
Baird, Texas

BRITISH FAN

Dear Sirs:

Would you please be kind enough to print my name and address in your correspondence corner of AMAZING, as I would like pen pals from all over the world, including men in the armed forces.

If there is an AMAZING club membership, how does one become a member? As I would like to receive your magazine regularly, and so far have not been able to do so.

Patricia Middleton
101 Ravensbury Road
St. Paul's Cray
Orpington, Kent, England

To the best of our knowledge, there has never been an AMAZING club. —Ed.

OPINIONS ALWAYS WELCOME

Dear Editor:

I have been a reader of AMAZING STORIES for approximately four years. I have

enjoyed each copy so much, that after I had finished them I lent them to my sister. After my sister returned them I sent them to my brother overseas.

However, this is not true of the October issue. I feel certain the wrong cover was put on this issue. The cover was fine, the stories inside were beyond my description. I feel sure these stories were intended for a true detective or something similar.

I read each one hoping to find at least one that would live up to its AMAZING STORIES standard. "Blessed Assassin" came pretty close but didn't make it.

I thought perhaps you would be interested in my opinion.

Mrs. Lois M. Cone
Rockcreek Station
Ohio

P. S. If that front cover was suggested by a scene from "Shadow on the Moon", I missed that scene when I read it.

HE LIKES ALFRED

Dear Mr. Browne:

I propose a toast! A toast, that is, to Alfred Coppel, for his wonderful story "...And Goal to Go", in the September issue of AS! That is the funniest piece of satire on *anything* that I've read yet! The best story in the magazine!

Running a close second was "Too Many Worlds", by Irving Cox, Jr.

I thought "Master of the Universe" was supposed to end in the November ish. No? Oh, how ghastly! How long do you intend to continue this farce?

In the letter section, Alfred Perez comments on the fact that you, Mr. Browne, do not answer some of the questions you're asked. I agree. You're not talkative enough! I thought it was part of an editor's job to give clear, concise answers to readers' questions. Also, this month only two or three answers to readers, like so:

- 1) "No Comment"
- 2) "We're sure that many...readers will remember the stories...."
- 3) "We promise you we'll keep up the good stories...."

Yeah, I remember the times the editor (not you) of AS was promising to go slick! Hah...!

Well, imagine that: a sensible editorial! By Paul Fairman, no less. (Technically, I suppose I should say, *group* of editorials.) Mr. Fairman hits the proverbial nail on the head in that bit about science and glamor. Be honest, HB, would you care to find out exactly how your office phone picks up your voice and carries it across New York City just so long as it operates perfectly?

Enjoyed muchly the autobiography by Edward Leslie Stewart. Maybe I should

Now, to the lead story:

"Mad Monster of Mogo" strikes me as an effort to live up to a former triumph on the part of Mr. Wilcox. I didn't read "Giants of Mogo", but knowing Mr. Wilcox' style (I *still* remember "Secret of the Serpent"!) I imagine it was very good, and some big brain thought it deserved a sequel. Maybe it did; that I can't say; but, like some great classics, Mr. Wilcox probably said all he needed to say in "Giants of Mogo" to make it a great story. Any more would be just so much waste. If this, indeed, was the case, then a sequel is not, is never, needed, and will fall flat on its face; which is just what MMOM did. I won't say it failed in its purpose, because, as far as I can see, it had none. A sequel hardly ever matches up to the original story.

One thing, before I go: FA isn't really folding, is it? Yeah, I know...no comment.

Ray Thompson
410 South 4th Street
Norfolk, Nebraska

HOW FANS ORIGINATE

Dear Ed:

Just finished October AS. All this ballyhoo in letters to the editor sort of tickles me. I am far from being a newcomer in this fan business.

Do any of you guys out there remember the origin of AS when Hugo Gernsback rode in the driver's seat and the mag was as wide as the present one is long, and the Annual over an inch thick came out each year with all the year's best stories printed or reprinted therein—way back in '24 and '25? Well, I do, for that was when I cut my first teeth on science fiction.

How could a guy get such masterpieces as "Land of the Giant Ants", "Alure City of Light", "Into the Sub-Universe", and other such stories, so instructive, and at once so intriguing, engrossing and interesting, that a newcomer just had to come back for more and still more, until he became so absorbed that today we are so numerous we are called sf fans. (Go to bed, chillin', dat's yo bedtime story for tonight.) But I still feel I am an old-timer fan. AS SUCH I APPEAL FOR SPACE IN YOUR MAG.

Best wishes for better and better stories. Just an oldy signing off,

Carl H. Poole
R. 4, Box 587
Ocala, Florida

DEMAND FOR AN ANNUAL

Dear Ed:

A little short story in the October ish of AS disturbed me very much. "He Played with Dolls", although written in a strict "English style" was supposed to be nar-

rated by a Canadian. Well, there just couldn't be such a Canuck as I read about in that story—fie on that British accent! A pretty poor effort on McGivern's part.

The rest of this ish was TOPS. I especially liked "The Blessed Assassins".

Include me on the yea side of Mr. Lupoff's AS Annual idea. I know I'd buy one. In fact I don't know how a true-blue AS or stf fan could resist.

Although most of my letter condemns a short story, I'd like you to know you've got a good AS and FA fan in Victoria.

Don Deman
3268 Alder Street
Victoria, B. C., Canada

MAN WITHOUT A ROOF

Dear Ed:

Bang! Went the roof of my head as I blew my top after reading the October issue. What was the idea of putting on the cover "Was it a man's love or a woman's lust that cast this Shadow on the Moon"? It sounds like the billboard to a Jane Russell movie, or the cover to a Love Romance magazine. Also, I don't remember anything in the "Shadow on the Moon" that was like the cover. Those are the only gripes I have for this ish so now I'll bore you with my rating of the stories. For the over 10,000 words:

"Deadly Dust" good
"The Blessed Assassins" fair
"Shadow on the Moon" gah-ah-ah

Under 10,000:

"Idiot Command" excellent
"The Innkeeper of Mars" good
"He Played with Dolls" bad
"Master of the Universe" groan. How long is it going to last?

Why not cut out the articles except for maybe one long one, and fill that space with another novelette?

If this letter gets printed, I would like to ask all the fans that live in San Francisco to phone me. (Wait a minute! Not all. Just those that live around Mission Street. And those that are interested in starting a fan club.) My phone number is MI 7-4072.

Well, thanks for listening to my gripes and groans, likes and dislikes for awhile, and especially thank you if you will print this letter.

Bob Stewart
274 Arlington Street
San Francisco, California

ANOTHER MOGO?

Dear Howard:

The November issue was very well received. And I liked it.

I immediately began to read Wilcox' sequel to "Giants of Mogo". Less than an hour later I raised my head and roared, "I've been tricked foully!" What gives?

After searching throughout the entire issue, I could find no announcement of next month's contents. I do hope there'll be another 30,000 words on Mogo. Gret didn't play much of a part, so I think this hope is likely.

Fairman's editorial was good. (Browne's getting lazy.)

Caught ya! Summers didn't do the cover. It was Popp. Good, too.

"Master of the Universe", I am beginning to think, is a fake. But I won't say so.

To I. Halliday—"Journey to Barkut" was good, I agree. But... surprise, surprise... it was not in AMAZING STORIES. It was in... STARTLING STORIES.

Now this is short and to the point. Will it see print? I doubt it.

Henry Moskowitz
Three Bridges
New Jersey

OLD CLASSIC

Sirs:

Some years ago you published a story titled "The Skylark of Space". I understand that this story is now published in book form. I enjoyed it when you first published it and I would like my son to read it now.

Will you please furnish me with the publisher's address and also price?

L. Parsons
R. D. 4
Greystone Park, New Jersey

The Skylark of Space appeared as a three-part serial beginning in the August 1928 issue of AMAZING STORIES. Hugo Gernsback then edited the book. —Ed.

ANOTHER OLD ONE

Gentlemen:

In a discussion of magazine articles the other evening I happened to mention a story I had read, possibly 20 or 25 years ago in one of your publications. This story appeared in AMAZING STORIES and was titled "The Bridge of Light".

I would like to inquire if you could give me the information as to whether this story is still in print and if so where it can be obtained—also who was the author.

I would like very much to read this article again, as I believe the author claimed some amount of truth to the article. It is my opinion that it would make good reading in one of your present-day periodicals.

L. G. Harrison
2206 Seaman Street
East Toledo 5, Ohio

A story titled "Bridge of Life," by Robert Moore Williams, appeared in the May 1946 issue of AMAZING STORIES. We can find no record of a "Bridge of Light". —Ed.

PROBLEM FOR

"THE BRAIN"

BY LELAND WING

FOR SIXTY years scientists have puzzled over whether a stream of fluid flowing at uniform speed between two parallel plates becomes turbulent. And now a mechanical "brain" at Columbia University has solved the problem. Its solution is expected to make it easier in the future for engineers to design better aircraft, steam turbines, hydro-electric power-generating machinery and other devices involving fluid flow. Scientists have now calculated that fluids of low viscosity, when moving rapidly, become unstable without any outside influence.

It took the "brain" about 150 hours to figure the problem. This is equivalent to about 100 years of hand computing.

The Columbia University mechanical "brain" is an International Business Machines' Selective Sequence Electronic Calculator.

Space Ships

Shot From Guns

BY RALPH COX

THE BEST and most efficient type of spaceship would be made by a bullet. Shot from a gun and pushed by rapidly expanding gases confined in the barrel, the bullet can reach a speed of 2,000 feet per second in only 3/100 of a second.

This represents an acceleration over 2,000 times that of gravity—2,000 G. Most plans for rocket ships call for accelerations of only four or five G so that a bullet, going more than ten miles a second, would be well above the speed necessary to escape from Earth—if it could accelerate for a full second at 2,000 G.

But the very thing that makes it so ideal is what's against it. Atmospheric friction and friction inside the barrel would ruin the projectile. The high accelerations would completely destroy whatever passengers the rocket carried. And the barrel of the space-gun, in order to be powerful enough to launch it at such tremendous acceleration, would have to be miles long.

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MONKEY BUSINESS

BY CARTER LINCOLN

THE HUMAN being could well learn a few tricks from the monkey and the rat. We have long known that monkeys like to solve puzzles merely for enjoyment. They even work the same puzzles over and over again, just for the sheer entertainment of it, and the challenge to their abilities.

Now, experiments show that rats also have a natural inclination toward learning even when there is no apparent possibility of their profiting by the knowledge.

According to the recent studies of two psychologists of the University of Wisconsin—R. W. Leary and H. C. Harlow—rats will expend a tremendous amount of energy just out of curiosity. They will knock themselves out to learn the workings of a circular maze, for example, where trap doors open whenever the rat goes into certain recognizable blind alleys. As

each trap door opens into another section of the maze, the rat continues to operate the following door just to see what comes next.

The rat that exercises some initiative in exploring the maze will learn the twists and turns much more easily than will the rat to whom all doors automatically open and who has no chance to use his own intelligence. Thus, when a reward of food is offered for the successful threading of the maze, the rats that have been using their own initiative are much better at getting the food than the rats that have been permitted to run through the maze while the doors were opened for them automatically.

If more people would have more curiosity and would seek more knowledge, even without hope of profit, we might find ourselves profiting more than we expect.

NO LIMIT TO MATHEMATICS

BY ART HAYDEN

THERE HAVE been as many definitions of mathematics as there are mathematicians, yet no one has succeeded in describing accurately the nature of this most abstract—and yet concrete—manner of human thinking. From the simple “mathematics concerns relations between numbers” to “mathematics is the science in which we don’t know what we’re doing to what”, the failure in description is apparent.

More can be learned about mathematics from considering the people who pursue it than considering the subject itself. Thus, we find in general that two types of people are attracted to the subject. The first type are the mathematicians; they do mathematics, impelled by some inner force; they create and devise; they generally have the spark of genius; they are the mathematicians. Getting an answer as to the nature of mathematics from these people who are most qualified is very hard.

The second class who indulge in mathematics are those who do so motivated by an appreciation of the aesthetic and beautiful, closely akin to artistic appreciation.

These people may or may not do mathematics. They are interested above all in the philosophical aspects of the subject and its relationships to other departments of human thinking. Very often they find the mechanics of mathematics difficult. Nevertheless they see in the subject, the ultimate abstraction of thought that it is. And most often it is they who try to popularize the subject, explain its intricacies and expose its beauties. That is one of the charms of the subject. It can be approached on such varied levels. You don’t have to be skilled at manipulating differential equations to enjoy the harmonies of mathematical thinking.

Aside from all this “aesthetic airiness” there is such real, everyday, obvious, practicality to the subject that it needs no apologists at all. Just reflect on how often each day you have occasion to refer to numbers or symbols! If you’re bored with bridge, tired of chess and find poker a losing proposition, if athletics wear you out and television leaves you flat, take a squint into the incredible world of mathematics. It might—it certainly will be—a revelation!

SKIN GAME

BY

TOM NICHOLS

THERE IS apparently a great need for further basic scientific work to determine the relationship between the mind and the skin. This is the opinion of the editor of the British Medical Journal, who reports in a recent issue of that magazine upon the treatment of fishskin disease—a condition in which the skin is rough, dry and scaly—by hypnosis.

It has been proved that many skin diseases are the result of emotional and mental disturbances. A recent study of a group of patients picked at random, all of whom suffered from various skin diseases, showed that 78 percent of them had an emotional disorder.

The patient who suffered from *ichthyosiform erythrodermia*—fishskin disease—had received many forms of treatment, but none of them effected a cure. Then—almost as a last resort—hypnosis was tried, and in eight days the patient's arms were cleared up. In about a month, the legs were almost well. Improvement went faster during the beginning of the treatment than toward the end.

Hypnotic treatment may open an entire new avenue of cure to many diseases from which we suffer today.

The Witch Of Wookey

Hole Cave

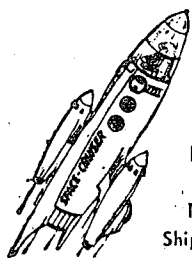
A THOUSAND years ago a monk exorcized the Witch of Wookey Hole Cave. But his formula must not have been too strong. Because she's back!

Wearing a cap and white apron, the Witch—or her ghost—has been reported seen recently in the calm resort village of Wookey Hole, in Somerset England. She seems to have overcome the most difficult of spiritual experiments—complete manifestation. Two persons are said to have seen her: one, an eight-year-old boy who asked his mother who the lady in the white apron was. In the second instance, she is said to have walked through a bedroom wall—as any self-respecting ghost would—awakening the woman who lived there.

The two cottages where she was seen have been abandoned by their tenants, ghostly skepticism notwithstanding. But the owner of the cottages doesn't mean to let his rent income slip out of his fingers so easily. Since twentieth-century science has no knowledge of ghosts, he is planning to rid himself of this one in the traditional manner: by getting a monk to perform the exorcizing service. —Charles Recour

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BY
CHARLES RECOUR

ATOMIC HOT BOX

By **DON MORROW**

AN AGE-OLD dream of science, the direct conversion of one form of energy—any form—to electricity, stands a good chance of being accomplished according to one of those nonpublicized bits of information which seem to filter out of the AEC's vast public-relations program. An atomic battery, weak-powered, but still a battery, has been announced.

Every device which generates electric energy on any sizable scale, with the single exception of the chemical cell, does so indirectly through the interaction of mechanical motion and magnetic fields, as in the conventional electric generator. Spin a coil of wire in a magnetic field and you get an electric current. This is the foundation of electric technology. Note the necessity for mechanical energy to be put in. That's the indirect method of current and power generation.

The chemical battery or, more exactly, cell, is direct. Put a couple of dissimilar metals in a chemical solution, usually an acid, and an electric current may be taken from the metals. This is the direct method, but it delivers only minuscule amounts of electric power.

The new atomic method, for which the world has a crying need, involves the direct method in which a gas is exposed to a radioactive source—for example, an atomic pile. The gas becomes ionized; that is, the molecules of gas have electrons knocked out of them so that they become electrically charged. Suitable electrodes inserted in the gas soak up these charged molecules and deliver an electric current.

So far, as in most direct energy-producing sources, the currents from this apparatus are feeble; sufficient energy to light a hundred-watt electric-light bulb would require an atomic installation a cubic yard in measure, obviously impracticable and merely a laboratory curiosity. But the potentialities are there, and the possibility of obtaining electric energy from atomic power without gas turbines, etc., is clear.

That this is more than a mere laboratory curiosity is borne out by the fact that the device is being used in instrumentation for certain measuring devices for radioactivity. The practicality has been demonstrated.

DESPITE all the talk about the commercial use of atomic energy, not too much is said about just how this will be done. It's undoubtedly a blend of secrecy and complacency—"Everybody knows how an atomic power plant should work!" the AEC men think.

Actually it is pretty simple, when you reflect on the fact that an atomic pile is essentially nothing more than a pile of graphite blocks and aluminum rod-sheathed cadmium, all of which simply gets hot! You control the amount of heat by moving the rods around, thus absorbing some of the neutrons. Scientists assure us that there is no danger of an atomic pile's exploding—but that idea seems a little sanguine.

The problem that faces an atomic power plant is making this heat energy do useful work. You can't just stick the atomic pile in the boiler of an electric generating plant and let it go. First, it's radioactive, and would cause the water in the boiler to become radioactive also. The exhausted steam—inventable even in a closed-cycle plant—would then spread around, unpleasantly. Consequently a heat-exchanger is needed. This is nothing more than some metal, possibly mercury, gallium or another substance liquid at ordinary temperatures and incapable of becoming virulently radioactive. This liquid metal surrounds the very hot core of the atomic reactor, and in turn is piped through a remotely controlled system to the actual boiler of the conventional electric generating plant. That, in core and essence, is an atomic power plant.

Naturally there's more to it. The handling of radioactives is at best a tough job. Controlling tons of fluid metal and partially radioactive steam is no easy job. In addition, it is simpler and cheaper to make electricity with coal or oil. Time may change this, especially if so-called "breeder plants", which are in effect creators of artificial atomic-energy substances, come into wide use and proper development.

But atomic power plants are out of the theory stage and in the realm of fact. You can make a safe bet that in another twenty years there'll be more than one community buying its "juice" from the Atomic Energy Commission!

Charting Electrons

BY
JUNE
LURIE

TWENTY YEARS ago Davisson and Germer announced their startling physical discovery that beams of electrons behave like beams of light. The theoretical aspects of this discovery for nuclear physics and for theoretical physics in general were incalculable. But the applied aspects of the discovery were no less useful. As a matter of fact, electron diffraction, as it is called, has given science a series of powerful levers with which to probe into matter.

The most familiar applied development of electron diffraction is of course the electron microscope. This amazingly ingenious instrument, which has metamorphosed from a rare laboratory tool into an everyday shop device, is a complex arrangement of magnetic fields, vacuum systems and electrical equipment. Essentially it permits magnifications of a half million or more. The best optical microscope can do no better than about a few thousand diameters.

As important as the electron microscope is the use of electron diffraction. In this process, beams of electrons are passed through materials and the pattern that they make is photographed. Analysis and study have enabled scientists to learn a great deal about the ultimate structure of matter, but the immediately important thing is the fact that industry uses this knowledge as a yardstick and measuring standard, particularly for such things as metals, alloys, cements—almost any raw materials.

Electron diffraction follows from the familiar principles of the electron microscope and behaves in fact much like X-radiation methods. The beam of electrons from a high-voltage source is shot into the specimen; as it passes through the material it is bent and disturbed in a familiar pattern, atoms and molecules being literally "outlined" by the "electron waves". Examination of such diffraction patterns enables an exacting, identifying record to be made.

Recent attacks on improvement in diffraction techniques have discussed the use of beams of other elementary particles such as protons. These electrically charged particles, much smaller than electrons, and almost two thousand times as massive, frequently provide even more information than the ordinary electron beam. It is said that many new vacuum-tube advances have been made through these methods.



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A CHECK ON *Einstein*

By

OMAR BOOTH

EINSTEIN'S NAME is popping up in connection with the Relativity Theory because several eclipse expeditions are finding a superb opportunity to check once more his famous "gravitational light shift". It would seem his theoretical ideas really need no further verification in the light of the firmly established doctrine they have become, but it is always the way with the scientific approach—check, check and check again.

An interesting reflection occurs with the summoning-up again of the Einstein Theory. As most popularizations have it, and as the textbooks themselves often have it, the famous Michelson-Morley experiment was the action which essentially triggered off Einstein into thinking about Time and Space. This is a historical inaccuracy, for Einstein wasn't even aware of the Michelson-Morley experiment until he'd announced his restricted Theory of Relativity.

The Michelson-Morley experiment was the famous check upon the "ether" through which all matter moved. Assuming we were embedded in this mysterious and vacuous fluid which penetrated all matter and which served as the medium for the propagation of light waves, Michelson and Morley determined to measure the *Earth's* velocity through the medium with a sensitive instrument known as the "interferometer". To their surprise, no relative velocity was detected, an astounding result to them, since it indicated that either the "ether" was being dragged with the Earth or—impossible!—there was no ether.

We know now that the answer was the latter. But independently, mathematically and analytically, Einstein, by a superb feat of mental gymnastics, deduced this consequence as a result of his theoretical work. That in itself is a marvelous accomplishment, as the world now knows. It must have been very gratifying to him, indeed, to learn that some of his theoretical work had been verified long before he had even announced it. But then that is not such a rare situation in science—although it is usually the other way around. First theoretical or mathematical work is done, and then the physical confirmation of that work is discovered. This time, fact preceded fancy.

The bending of light waves by gravitational fields has been confirmed, of course. But it won't hurt to have additional data on it. The final checks can be made when the atmosphere-free Lunar observatories are established!

STF

Goes On Forever

By PETER DAKIN

ONE OF the marks of "good literature" (whatever that may be) is, according to the critics, its longevity and enduring value. And employing that touchstone, many critics superficially familiar with the field of science fiction are inclined to deplore it. Nothing could be less just.

The roster of science-fiction authors does not go far enough back in time to permit an extensive compilation of names, but Verne, Wells, and a few other "ancients" who were in the medium will be read for a long time. True, their works cannot be regarded as literary masterpieces, but, as literary curiosos, they are fascinating reading.

Science fiction as we know it began with Burroughs, *Amazing Stories* and the Twenties. It is hard to see so new a literary form in its proper perspective. Nevertheless, a definite outline or pattern of the caliber of this material may be discerned. Most of it will not endure as literature; but all of it will endure as curiosos, and a surprisingly large percentage of it makes first-rate reading even today, in the light of all that has happened in the last three decades. It is not a matter of predictions and prognostications, of "Joe Blow predicted radar back in nineteen twenty-nine." Rather it is a matter of seeing how cleverly Joe Blow worked a scientific theme into a sound story.

An examination of the present *Amazing Stories* will readily show the advance in quality of material, but this by no means derogates the earlier stuff. Science fiction is a tough stuff which stands the strain of time remarkably well. To prove this for yourself, you have only to notice that Hollywood, which is up to the minute in everything, frequently chooses relatively old stories from which to exploit the newly awakened public interest in s-f films.

Although two decades old, "When Worlds Collide", by Balmer and Wylie, is considered by many critics the best s-f film ever produced, incomparably superior to anything shown since! Witness the hardness of the "Tarzan" films, despite their poor production.

The stories we read today will be almost as fascinating fifty years from now—and not from a historian's standpoint, either. They will give genuine pleasure—not all of them of course, but enough—and, after all, conventional literature produces a no greater volume. S-f is sturdy and enduring, no matter what the supercilious say!

AIR BRAKE FOR JETS

By
TOM LYNCH

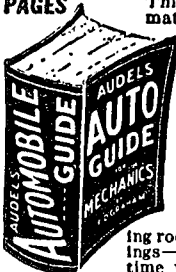
"BLAST THE atmosphere!" moans the rocket engineer half-humorously, "if it weren't for that blanket of air, I'd be able to squeeze quite a bit more speed out of this baby." And he pats affectionately the flank of the metal cylinder beside him. Actually he realizes he has no cause to complain, for the uses of the atmosphere (aside from that of keeping us alive!) are far more important to rocketry than its interferences. The vast shell of air around the Earth is some day going to serve as a gigantic pneumatic cushion, a shock absorber and speed reducer without which the rocketeers' problems would be multiplied many times.

In rocketry the main problem, naturally, is getting the projectile into space. But, equally important, if the vehicle is manned, is the problem of getting it back on Earth, and that is where the air serves its purpose. Visualize a rocket returning from its first trip to the Moon. Unlike the hypothetical projectile of Jules Verne's *A Trip from the Earth to the Moon*, the rocket cannot simply plunge into the sea. The speed it has accumulated in its passage from the Moon must be dissipated gradually, and finally there must be a calm landing. The air will accomplish this!

The rocket will not enter the atmosphere blanket at right angles; it will not come plunging in like a meteorite. Instead, it will graze the outer atmosphere at a height of a hundred or a hundred and fifty miles, losing in the process some of its speed, the energy being absorbed by friction. Then it will shoot out into space in an elliptical orbit to come back and repeat the process, the Earth serving as a focus of the huge ellipse. Several repetitions of this simple maneuver will so safely reduce the velocity of the rocket that it will reach the point where the use of small amounts of fuel and of a huge parachute will enable it to land smoothly and safely. Eventually, when rocketry is made into a science instead of an art, landing on "braking jets" will be standard—no parachute necessary. But the technique of dissipating energy against the atmosphere will be just as valid as ever. In view of the fact that atomic energy will soon provide all the fuel we need for rocketry, the interference of the atmosphere will be far outweighed by its usefulness as a braking medium.

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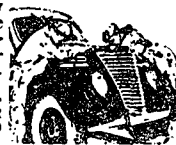
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"Dynamic Analogues"

By SALEM LANE

THE TERM "dynamic analogues" is one of those pin-point expressions so often used in science to describe exactly a specific thing. What it means is simply "machinery comparisons". It is a powerful physico-mathematical tool for doing scientific and engineering work. Its method of procedure is familiar to everyone who's ever read any books on the popularization of science—though, admittedly, it can get complicated sometimes.

For example, when the fundamentals of electricity are explained to you, most often the explainer compares electricity with flowing water (current) and voltage to a sort of "water pressure". These familiar ideas help you understand the completely unfamiliar ones of electricity. By comparison and combination, you put things together and eventually you understand what electricity is—as far as one can understand.

That's a dynamic analogue!

But of course this instance is the ultimate in simplicity. The real use of the method lies in the formulae and mathematical calculations which it provokes. And, oddly enough, in modern science the shoe is on the other foot; that is, so much more is known from a mathematical standpoint about electricity than about mechanics, that the former is used to interpret the latter!

This is particularly true in problems involving vibrating objects, perhaps the mountings for a refrigerator motor or the springs on an automobile. It's very hard to set up the differential equations describing that sort of motion. On the other hand, electricity deals with vibrations too, and the mathematics has been clearly and easily worked out. Why not translate one into the other, do the problem and then translate back again? That's precisely what is done.

Call electric current "velocity" and voltage "force", and make some other analogical statements, and the mathematical treatment of a problem in mechanics is virtually reduced to a mechanical-manipulation problem. Thus "dynamic analogues" simplify many, many things. And when you tell somebody that a vacuum tube, a triode, works like a "water valve", you're really making a dynamic analogy....

• NOT FOR JUST A • DAY

By E. BRUCE YACHES

THE UBIQUITOUS vacuum tube has been brought up short. Miracle-maker that it is, it is not receiving nearly the attention or use that it should. Like a second brain, the three-element electron tube which is probably the greatest single invention of the twentieth century should be found everywhere and in every capacity. Yet it is not. Why?

It is a fragile thing, a delicate blend of metal and glass subject to very conceivable sort-of-failure, and where the failure of the human brain in a given situation is relatively rare, that of a vacuum tube is surprisingly frequent. Remember how often you've cursed the TV set when the picture suddenly went blank, or how bumping the radio slightly knocked it out? There is the answer to the failure of the greatest single invention in modern science.

This magazine has reported on "ruggedized" tubes; on how various phases and branches of science and technology are crying out for vacuum tubes which will last. In many applications vacuum tubes are forbidden gadgets. For example, they would make steering large ships child's play, but the Navy forbids them—you can't trust 'em—you never know when a tube will blow! Power companies are breaking their backs trying to design them into relaying systems but they always have to worry about failure. Rocket engineers too like their compactness, and the main reason they're able to use them is that the life of present rockets is as short as that of the tubes.

The Institute of Radio Engineers has made an all-out plea to designers and manufacturers to quit concentrating on new vacuum tubes and, instead, to get to work designing vacuum tubes with an indefinite life and an inherent resistance to failure and shock. "Do this," it says, "and you will have performed a service beyond repayment."

Modern life depends upon machines and machines, in turn, depend upon direction. Whether that direction comes from human beings or vacuum-tube brain elements is directly up to the builders of vacuum tubes. Modern progress is stymied through lack of sturdy vacuum tubes. There must be no more burned-out filaments or broken elements or broken shells. Tubes must be stronger than solid slugs of metal. Get to work, engineers! The future is waiting!

The Skinny Space Ships

By

JON BARRY

INVARIABLY, when rockets are depicted by artists for the magazines, there is a tendency to show that they are veritable pillars of strength; the impression of weight and massiveness is striven for. Engineers of the future, however, are likely to correct this by a considerable margin. Compared with a railroad car or even an automobile, a true spaceship won't be very strong at all! It'll be a mighty flimsy affair.

That remark needs a little explanation. To begin with, rockets are built according to pretty conventional ideas of strength because they do have to resist stresses and forces of considerable magnitude. There is the terrific thrust of rockets, with the hull reacted against by the air. There is the jar and strain of landing. So rockets intended for planet-to-planet hopping will have to be fairly strong.

Spaceships—and note that word “space”—it makes all the difference—need only be strong enough to hold air and hold together. They can be built literally of baling wire and cardboard! This concept is dependent upon the idea of spaceships as being merely vessels traveling in space, not intended to land anywhere save against the side of an artificial satellite, a space station. They will be built in space and will travel in space—nowhere else. Consequently, they do not have to lug around useless mass requiring precious fuel. Rather, they are cabins for housing people and things pushed by reaction motors. Their construction may be very similar to the skin-like shells of modern airplanes, a fraction of an inch thick. Meteoric penetration means nothing because, the thicker the wall, the greater the amount of radiation released by a high-speed meteor, and the more danger to the occupants. The shell of a space could never be built strong enough to resist the impact of a large meteor and the whole theory of space travel is predicated upon the idea that the chance of a meteor's striking a ship is quite remote.

Spaceship design is now beyond the drawing-board stage. Everything is anticipated and prepared for. All that remains is the fuel. While the beginning rockets may look as sturdy as the steel-shelled V-2, the ones which go out into space will be a lot less massive—but they'll get there just the same!

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SUB-KILLER!

By LEE OWEN

THE POWERS and horrors of the future submarine have been graphically described; sonic torpedoes, Snorkel breathing devices and electronic instruments have made it a powerful offensive weapon. But not all the cards are stacked on the underwater killer's side. Taking a leaf from the submariners' own book, the sub-killers have come up with a few murderous weapons of their own. Submarine versus surface-ship is a two-way street!

A potent weapon against the submarine is the low-flying airplane, helicopter or blimp equipped with small powerful rockets fired in area-covering patterns from which there is no escape. These small rockets can make a sieve of a submarine in seconds. Guided missiles fired from these same aerial avengers are another ace-in-the-hole against which the sub is as helpless as a baby.

But the real sub-killer will be the torpedo, essentially nothing but a miniature submarine equipped with an explosive warhead—and expendable. A ship attacked by a submarine may be sunk, but between the time that it is struck and the time that it sinks beneath the waves, it writes the death warrant of the submarine by launching "seeker" torpedoes against it. These torpedoes may be sonic-guided, they may be fired by direct aim, or they may be remotely controlled by a sonic-transmitter. Whatever the control method, two or three or more of them can make the submarine a dead duck! Ships are notoriously more expendable than submarines. Even if the subs sink their victims, if they are in turn sunk, they won't be able to do more than transitory harm to an over-all shipping program.

More and more, sea warfare, like aerial warfare, is beginning to take on a peculiar resemblance to the impersonal fighting of robots so long predicted by s-f. So far, with the single exception of the atomic bomb, every weapon, in whatever category, is countered by another, defensive, weapon. It is conceivable that within our time—for the first time in all recorded history—the weapons of war will become so evenly balanced, offense and defense, defender and aggressor, that victory without defeat will be impossible! Then, at last, men may come to their senses—all because of the robot machines which are slowly but surely infiltrating civilization....

MACHINING UNDER FLUID

By RALPH COX

CUTTING or machining metals and alloys of extreme hardness, like tungsten or boron carbide, has always been a headache. Until now, this has been done with diamond tools or diamond dust, tediously, painstakingly and inefficiently. But a Hungarian engineer has invented "spark machining", and the problem has been solved. Substances of any hardness whatsoever—including the diamond—succumb to this new method.

To bore a hole in a piece of tungsten carbide, for example, the following method is used. A brass electrode of the precise shape of the hole is made. It is placed almost in contact—but not quite—with the piece of carbide, under a layer of kerosene. It is located a distance measured in thousandths of an inch away. Then a moderate voltage, say two hundred volts, is applied between the workpiece and the brass electrode. Tiny little chips are torn away and the electrode is lowered into the hole, neatly eroding tungsten carbide in its exact shape.

This new method of machining under kerosene with nothing but electricity is actually a comparatively simple phenomenon, whose existence in theory at least has been known for a long time. The practical application, however, is only the product of an exceedingly fertile mind.

The strength of an electric field falls off inversely with the square of the distance. Hence the forces stressing the carbide and the brass are extremely high when the spacing is only a thousandth of an inch and the electric field intensity is hundreds of thousands of volts per inch! The forces are then so great that the brittle metals simply fracture in minute pieces and are torn away. The kerosene serves to prevent an actual electric spark which would serve no useful purpose at all save to weld the two parts together. That little trick of working under kerosene was the answer.

This new technique will concern no one directly except perhaps scientists and engineers, but indirectly it will be reflected in the lowered cost of a thousand things ranging from wire drawing dies to devices for fabricating costume jewelry. Tearing metals apart with an electric field is about as ingenious a method of working as science has yet devised.

CAN WE MAKE SATURN? • •

By **HUGO BRANT**

WE CAN visualize the day when Man-carrying rockets plant themselves on the Moon, on Mars and on Venus and Mercury. Eventually they will land on Titan and Oberon and Tethys and all the other satellites of Jupiter and Saturn, but we can't ever see a time when rockets (except remote-controlled ones) will land on those massive giants of the Solar System, the two planets of Jupiter and Saturn. If Nature ever designed more forbidding barriers than these, we have yet to learn of them.

Jupiter and Saturn are not planets in the conventional sense of the word. They are enormous masses of matter still in a state of flux, with environments so alien and so terrible to human conception that the imagination cannot conceive of their harboring any kind of life whatsoever. Consider their structure.

Jupiter, eighty-six thousand miles in diameter, starts with a massive core of matter under a pressure of sixty million atmospheres. Surrounding this is a lesser shell of twelve million atmospheres, followed by the actual atmosphere of the planet itself, a mixture of solid methane, hydrogen and ammonia. Seen through spectroscope and telescope, this incredibly ferocious "climate" is in movement and action under powerful forces of gravity, perhaps aided and abetted by temperature and electrical and magnetic effects. No man-made machine could endure such ferocity. Saturn's structure is very similar, and as inhospitable. When the satellites of these giants are reached, the astronomers and cosmologists will have a field day analyzing the planetary structures.

Jupiter's "Red Spot", some traces of which may still be discerned, may endure long enough to facilitate explanation. At present, no one knows just what this vast spot thirty thousand miles in diameter signifies. It is of low temperature and it moves about the planet's surface, probably, scientists think, because of thermal effects. There is a strong suspicion that the Red Spot may have some connection with the strong radioactivity supplying the planet's internal heat.

Saturn's "innards" are as mysterious and as inexplicable as are those of its sister planet. Here too, astronomers who will observe from planetary satellites will be overjoyed to study the fabulous environment of this other least hospitable Solar member.

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Exact Science

By DEE ARLEN

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THERE isn't a science-fiction reader alive who isn't familiar with the term "hydroponics". Literally it means "water at work", and it refers to the growing of plants in a nutrient medium of water plus chemicals. Its connection with science fiction is evolved from the idea that space-ships must have air, and plant life is a perfect oxygen-producer. Therefore space-ships will be equipped with hydroponic gardens in which pumpkin leaves or similar greenstuffs are grown to provide the necessary oxygen. This is not speculation: if anything can be said to be certain, it is the fact that, when spaceships are built, hydroponic gardens will be a part of them.

Here on Earth, however, hydroponics has had a checkered career. In some instances it is used extensively to produce a food supply. The yield is high per given area, and artificial light can keep the hydroponic beds operating all the time. In Japan a surprising amount of food is produced this way, and in our country—in Florida, for example—numerous operators produce specialized high-priced crops like tomatoes on a large scale in hydroponic cultures.

On the other hand, the necessity for close chemical control and for elaborate tank construction prohibits the use of hydroponics on a truly grand farming scale. The utility of the science is thus somewhat limited, and the original accounts were considerably overblown. Nevertheless, there is a place for hydroponics and, when rocketry comes along, the public interest is going to boom. Hydroponics experts like Dr. Tiedjens will be in demand!

Tiedjens, aware of the encroaching popular clamor for information, points out that a successful experimental hydroponics installation can be made from any sort of tank and the following solution: a teaspoon of baking powder containing calcium phosphate, a teaspoon of Epsom salts, a teaspoon of potassium nitrate (saltpeter), and a half teaspoon of household ammonia. All these, dissolved in a gallon of tap water, provide a perfect trial solution. With some practice, flowers and plants can be grown in the nutrient medium, although it must be realized that this is rudimentary technique. For real enthusiasts, there are dozens of books on hydroponics methods. It is a science with a future!

THE LABORING MOUNTAIN

By ROY SMALL

SCIENCE is notorious for laboring at mountainous projects which consume the energies of thousands of men, gigantic quantities of material and incalculable effort—and then bringing forth a much-mulled-over mouse!

Perhaps that's an exaggeration, but it is true enough that, all too frequently, scientific investigation will disclose, after much fanfare, a fact which has long been discernible to a two-year-old. This is no reflection on scientists, but rather a warning to the layman to proceed with caution when the world of science announces an Earth-shaking discovery.

Perhaps, the best example of this tendency occurs in the investigation of sound. From Fourier analysis, that powerful mathematical tool for the investigation of wave motion, through the oscilloscope, to electronic gadgets of unbelievable complexity, science has been taking apart sound in order to discover what it really is. But sound—talk, noise, music—is an old human experience. And what man has learned through science he has already known empirically!

Specifically, scientists have announced that pure musical instruments, perfectly tuned by scientific techniques, don't sound good to the human ear! But any musician has discovered that for himself! Now that it is possible to build perfect tone producers and to tune musical instruments by sight rather than by ear, science discovers that perfection is not wanted. The human ear finds pure sounds unpleasant, unmusical, discordant. It wants the overtones and harmonics that slight de-tuning provides. It wants the distortion and confusion that arise from imperfection. It didn't need scientific analysis to tell it so, either!

Satire aside, the scientific study is actually invaluable, but not in the field of music. A scientist will put a modern violin and a Stradivarius on his machines and point out that, physically, they are exactly alike—even to the analysis of their tones. But your ear will give him the lie. They aren't—and that's all there is to it. In some fields, scientific analysis just doesn't apply. Logic goes only so far and then feeling and intuition take over! Crawl back in the lab, Professor, while the Basin Street Blues roll out—ears, not oscilloscopes, do the listening!

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Short-Short

Short Story

By E. BRUCE YACHES

66 "CHECK ONCE more through the finder, Jim," Dr. Brady said to his assistant. His voice sounded hollow in the bulbous space helmet.

"She's right on the button, Doc," Jim answered. His bulky, suited finger stabbed the button. "Automatic drive is on—so is the camera. We'll get some beautiful shots tonight—I mean today," he hastily corrected himself.

Dr. Brady laughed. "It's hard to get used to time in the Lunar Observatory, eh boy?" Jim grinned and turned back to his instruments.

"I'll get used to it," Jim said. "When I think of the time I've wasted on Earth domes and telescopes I could kick myself. This always-perfect seeing is hard to believe."

"You should have heard the time I had persuading the board of directors to finance a Lunar Observatory," Dr. Brady said. "They couldn't understand the difference between a telescope in a vacuum and one buried under a hundred miles of air. Give me Luna any time!" His space-suited figure clumped across the observatory floor to the air-lock leading to his office....

That's only imagination now, but one of the first duties of the initial Lunar rocket flights—when they come—will be to establish astronomical observatories with high-powered telescopes which can take advantage of perfect "seeing" unhindered by the interfering layer of air that blankets the Earth and makes astronomers gray before their time. The problem is rapidly becoming acute. We've got telescopes of tremendous power, but they don't show one tenth of what they are able to because the shimmering air distorts every image and makes it a wavering ghost. And there is no cure but to get rid of the air. The only way to do this is to go out into space.

Recently astronomers demonstrated the shimmering effect of the air on star images by using a photo-cell to change the star's image into an electric current and then using this electric current to operate a loudspeaker. The resulting rustling sound clearly demonstrated the difficulty of trying to get a high-powered stable image. It was as though the screen on your television set were to vibrate constantly. You can imagine how poor the image would be! Astronomers, having reached the limit of their powers, are praying daily that rocketry gets going and gives them the perfect seeing of the vacuum of the Moon!

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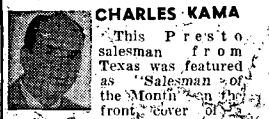
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